VELVAC®

In the Passing Lane Since 1934

PRODUCT CATALOG 2012

800.783.8871

WWW.VELVAC.COM

With Velvac Products... You're Always in the Passing Lane

Velvac products support a wide range of medium and heavy duty commercial vehicles, from Class 8 over the road haulers, to RVs, buses, fire trucks, ambulances, walk-in vans, refuse and fleet vehicles.

Our mission is to improve driver safety and well being by offering superior products and solutions that fully satisfy our customers needs, making us better, faster and easier to do business with.

Our ability to to design and produce cost effective, differentiated vision systems and components to automotive quality and appearance levels sets us apart from other companies in this industry, keeping us... **in the Passing Lane.**

At Velvac, we are continuously expanding and upgrading our broad product categories in an effort to exceed the needs of our customer base and changing markets conditions.

Focus and attention has been given to each new product brought to market to ensure owners and operators of Heavy Duty and Commercial Trucks, Motorcoaches, Buses, RVs and Specialty Vehicles remain "in the Passing Lane."

This catalog includes hundreds of new part numbers that are identified by the NEW symbol and red part numbers. Additionally, look for our expanded line of POP displays and Plan-O-Grams in the back of the catalog under the Retail section.

VELVAC®
In the Passing Lane Since 1934

VELVAC®
Quality Driven Vehicle Components Since 1934

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For quantity and packaging information, refer to Velvac price list

Customer Service:

Phone: **800.783.8871** *Fax:* **262.786.4101** **E-mail:** **sales@velvac.com**

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Vehicle Mirrors 3-31

A combination of styling, quality and performance make Velvac mirrors the new benchmark for medium and heavy duty commercial vehicles, recreational vehicles, motorcoach and buses, as well as specialty vehicles like fire trucks and ambulances.

All of our mirrors are designed to be OEM+ in quality, durability and finish. From our 2010 West Coast mirrors for heavy duty trucks to our class leading 2020 mirror system for medium duty vehicles, our goal is to develop and manufacture mirrors that improve safety by reducing vibration and providing large, clear views of blind spots and passing lanes around the vehicle.

Check out some of our advanced vision systems in this section that incorporate integrated cameras for optimum field of view and blind spot coverage, such as our 2020 Mini-LEM, VMAX-III with LEM and Euro with LEM.

NEW — Indicates a new product added to catalog

VELVAC Original — Indicates an original Velvac® product

Revised Part No. — Indicates a revised part number

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VELVAC® In the Passing Lane Since 1934

Velvac's 2010 West Coast Mirror Offers the Widest Viewing Area Available!

- Larger glass 2010 mirrors feature over 106 square inch viewing area
- Designed to fit any standard 17-1/2" span loop
- Replaceable 1/8" FSC mirror glass
- 4 amp, temperature-controlled heating element provides quick, even defrosting and prevents mirror glass from overheating
- Polished 300 series stainless steel outer shell and heavy-duty ABS plastic inner housing combine to ensure durability and good looks
- Optional marker light provides additional safety by indicating the widest point of the vehicle to oncoming drivers
- Mounting hardware included

Motorized 2010 Mirror features

- Heavy-duty, 1.5 RPM motor for fast smooth adjustments
- Sealed motor housing for protection against moisture and contaminants
- Automatic slip clutch for manual adjustments without gear damage
- Interchangeable wire harness for convenient retrofitting

Part No.	Description
REPLACEMENT PARTS	
709309	Heated Glass w/ Bezel
709329	Motor
747386	Lighted Heater Switch
747387	Momentary Motor Switch
747451	4 Conductor Harness 124"

Left Side Part No.	Right Side Part No.	Description
MIRRORS WITH 10' WIRE HARNESS AND HEATER SWITCH*		
(*Motorized models also include a momentary motor switch)		
708209	**708210**	Heated and Manual
708211	**708212**	Heated and Motorized
708369	**708368**	Heated, Motorized and Lighted
MIRRORS WITHOUT HARNESS OR SWITCHES		
708209-4	**—**	Heated and Manual
708211-4	**708212-4**	Heated and Motorized

7" x 16" V-back Mirrors

- Popular V-back design available in three different versions to meet all customer requirements and price points
- Over 96 square inches of viewing area
- Available in both stainless steel and painted versions, all with 5/16" hardware

VELVAC Original

	BEST- OEM Mirror	Better	Good
APPLICATIONS			
	Popular replacement mirror for many OE applications	Cost effective version of OEM mirror	Cost effective mirror for high replacement application
CONSTRUCTION			
	HD support bands and gasket surround the front surface chrome glass for added strength and durability	Gasket surrounds silvered glass for durability and edge shock protection. Front surface chrome glass used on heated mirrors	Gasket surrounds silvered glass for durability and edge shock protection
GLASS			
	Replaceable	Replaceable	Not replaceable
PAINTED FINISH			
	Powder coated to meet OEM requirements	Powder Coated to meet OEM requirements	Standard painted finish
HARDWARE			
	All stainless steel hardware	Plated hardware	Plated hardware
PACKAGING			
	Individually packaged in plain box	Individually Packaged in display box	Ind. Packaged in display box
Description	**Part No.**	**Part No.**	**Part No.**
Black	—	**708001**	**705114**
Black Heated	—	—	**705115**
White	**708020**	—	**705116**
Stainless Steel	**708022**	**708005**	**705112**
Stainless Steel Heated	**708046**	**708008**	**705113**
REPLACEMENT PARTS			
Glass, non-heated	**702042**	**702044**	—
Glass, heated	**702047**	**702045**	—

Navistar/International West Coast Mirror

International style plug

- OEM replacement mirror fits International S-series and other trucks
- 7" x 16" aluminum housing - heated and non heated versions available
- Non-heated version fits left or right sides of the vehicle
- Order 713198 AL loop and brkt kit separately to replace existing OE mtg

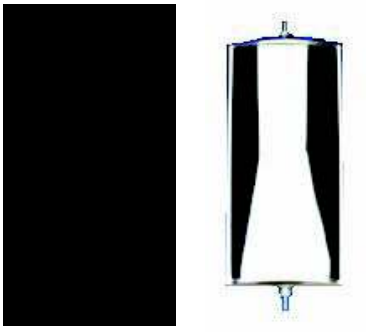
Part No.	Description	Fleetrite Part No.	Navistar Part No.	Cham-Cal Part No.
708335	Non-Heated Mirror	MIR4070	1657021C91 1657048C91	20000
708336	Htd Mirror, Right	MIR4071	1667899C91	20090
708337	Htd Mirror, Left	MIR4074	1669515C91	20080
713198	Loop and bracket Assembly			

West Coast Mirrors

- Quality West Coast Mirrors for new vehicle installation, replacement and retrofit
- Designed with 1/8" silvered glass and 5/16" - 18 plated hardware - mounting fasteners are included
- All West Coast mirrors are packaged in a display box except the Economy Angle Back mirrors

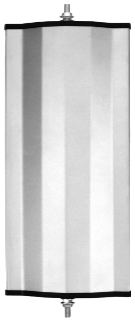
Angle Back Round Corner - Full Flat or Split Glass

Angle Back Square Corner



Pillow Back

Rib Back



Economy Angle Back - Full Flat or Split Glass

Part No.	Size	Description	Finish	Flat Glass / Convex Glass Area Square-Inches
ANGLE BACK - ROUND CORNER				
705333	7" x 16"	Standard Glass	Polished SS	93
705335	7" x 16"	Heated Glass	Polished SS	93
708331	7" x 16"	Heated w/ Marker Light	Polished SS	93
705334	7" x 16"	Split Glass	Polished SS	64 Flat / 26 Convex
ANGLE BACK - SQUARE CORNER				
708526	7" x 16"	Standard Glass	Polished SS	99
708525	7" x 16"	Heated Glass	Polished SS	99
705332	7" x 16"	Heated w/ Marker Light	Polished SS	99
705108	6.5" x 16"	Heated w/ Marker Light	Polished SS	84
PILLOW BACK				
705101	6.5" x 16"	Standard Glass	Black	81
705102	6.5" x 16"	Standard Glass	Polished SS	81
705103	6.5" x 16"	Standard Glass	White	81
RIB BACK				
705104	6.5" x 16"	Standard Glass	Black	88
705117	6.5" x 16"	Heated Glass	Black	88
705105	6.5" x 16"	Standard Glass	White	88
ALUMINUM ECONOMY ANGLE BACK				
705038*	6" x 16"	Standard Glass	Aluminum	94
705107*	6" x 16"	Split Glass	Aluminum	66 Flat / 21 Convex
705111**	6" x 16"	Standard Glass	Aluminum	94

**705038, 705107 have black plastic end caps. **705111 has heavy duty metal end caps for added strength.*

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BLIND SPOT CONVEX MIRRORS

Velvac offers a wide variety of convex mirrors including DuraBall®, K-10® Eyeball®, Three Screw Ball Stud and specialty convex. These mirrors are available in several finishes and materials including stainless steel, chrome, powder coat and painted. Standard convex, heated convex and Wide View lenses provide the right mirror for all your blind spot or cross view applications.

DuraBall® Convex

VELVAC Original

8.5" diameter

6" diameter

5" diameter

8.5" diameter

10" diameter
Wide View

- Velvac's DuraBall® mirror and pivot system features a HD nylon inner and outer ball with stainless bolt and locking "L" bracket for easy mounting and operation
- Heavy guage stainless steel or powder coated galvanized steel construction protects mirrors against corrosion
- Rolled edge on 5" and 8.5" diameter mirrors - outer gasket on 6" diameter mirrors
- Available in popular 10", 8.5", 6" and 5" diameters with several lens options. 8.5" is also available with center mount or offset mount
- Designed for long lasting operation. DuraBall mirrors are guaranteed against shell cracking and breaking for 5 years
- Mirrors other than Wide View include mounting "L" bracket or tube bracket, mounting hardware and come in an attractive display box

Three Screw and Specialty Convex Mirror

8.5" diameter

7.5" diameter

8.5" diameter
Part No. 708558

5" and 6" diameter

- Three screw ball stud offers secure mounting and easy adjustment
- Available in high luster stainless steel, chrome plated steel or painted steel finishes
- 8.5", 7.5", 6" and 5" diameters with standard convex and heated options. 8.5" and 7.5" are also available either center mount or offset mount
- Includes mounting "L" bracket, mounting hardware and comes in an attractive open display box
- 708558 convex features high luster chrome plated stainless steel shell and heavy duty nylon ball stud, bracket not included

DuraBall®, Eyeball® and K-10® are registered trademarks of Velvac, Inc.

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BLIND SPOT CONVEX MIRRORS (cont.)

DuraBall

8.5" diameter

8.5" diameter

8.5" Wide View

Three Screw Ball Stud / Specialty Convex

7.5" diameter

8.5" diameter

Finish	Lens Option			Lens Option	
	Standard	Heated Glass	Wide View Convex	Standard Glass	Heated Glass
10" CENTER MOUNT			Plexiglas® Lens		
Stainless Steel			709218		
Black			709216		
White			709217		
Post Office White			709226		
8.5" CENTER MOUNT					
Stainless Steel	708441	708453	708448	708501	708559
Black	708442	708455	708449	708503	
White			708450		
Post Office White			708463		
Chrome				708556	
Chrome Plated Stainless				708558 *	
8.5" OFFSET MOUNT					
Stainless Steel	708444	708457		708502	708560
Black	708446			708504	
Chrome				708557	
7.5" CENTER MOUNT					
Stainless Steel				708508	
Black				708510	
Chrome				708554	
7.5" OFFSET MOUNT					
Stainless Steel				708509	
Black				708511	
Chrome				708555	
6" CENTER MOUNT					
Stainless Steel	708478			708515	
SS with Tube Bracket**	708476				
Black	708479			708516	
Chrome				708553	
5" CENTER MOUNT					
Stainless Steel				708520	
Stainless Steel-Flat Glass	708473			708514	
Black				708521	
Black - Flat Glass				708513	
Chrome				708552	
Chrome ABS				708551	

*Heavy Duty Nylon Ball Stud see page 6

***Stainless Steel tube bracket and clamp kit part No. 723057 also shown on page 29*

***NOTE:** Plexiglas ® is shatter resistant*

***Plexiglas® is a registered trademark of Evonik Industries

Description	ROC
10" Wide View	8.5"
8.5" Wide View	5.5"
6" DuraBall	14"
5" DuraBall	10"
All other convex	13"

Helpful Hint:

Mirror head diameter and ROC (Radius of Curvature) help determine field of view coverage and image size provided by the convex mirror. Wide View convex mirrors are typically used for front and rear cross view applications where a wide field of view is desired. Standard convex mirrors are used for viewing targeted blind spots or passing lanes around the vehicle

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BLIND SPOT CONVEX MIRRORS (cont.)

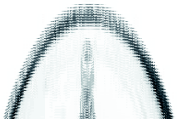
K-10 Convex and Eyeball® Convex

- Provides outstanding views of troublesome and dangerous blind-spots around the vehicle
- 10", 8.5" and 6" dia. in SS, powder coat steel and ABS plastic with standard convex and Eyeball ® convex lens
- HD inner and outer nylon ball stud with SS mounting hardware for durable, smooth and long lasting operation
- Use as a supplement to West Coast mirrors, side blind spots or front and rear cross view applications
- Heavy duty outer gasket protects mirrors from edge shock and allows mirror lens to be easily replaced

Finish	Mirror Head	Replacement Lens
STANDARD CONVEX LENS		
10" Diameter - 13" Radius of Curvature		
Stainless Steel	**708602** *(CX10S-S)*	**702149** *(CX10L)*
Black ABS	**708615** *(CX10ABS)*	**702149** *(CX10L)*
8.5" Diameter- 13" Radius of Curvature		
Stainless Steel - Center Mount	**708601** *(CX08S-S)*	**702148** *(CX08L)*
Stainless Steel - Offset Mount	**708609** *(OSCX08S-S)*	**702148** *(CX08L)*
EYEBALL CONVEX LENS		
10" Diameter - 8.5" Radius of Curvature		
Stainless Steel	**708605** *(EB10S-S)*	**702159** *(EB10L)*
Black ABS	**708604** *(EB10-ABS)*	**702159** *(EB10L)*
8.5" Diameter - 5.5" Radius of Curvature		
Stainless Steel	**708608** *(EB50S-S)*	**702158** *(EB08)*
Stainless Steel - Offset Stud	**708610** *(OBEB50S-S)*	**702158** *(EB08)*
Black	**708606** *(EB45S-B)*	**702158** *(EB08)*
6"Diameter - 5.5" Radius of Curvature		
Black ABS	**708603** *(EB06S-B)*	

Eyeball Convex

Front View Eyeball Convex



Back View Stainless Steel

Back View Black ABS

8" Polypropylene Convex Mirrors

- 12" radius of curvature
- Light weight one piece non-corrosive plastic shell
- Adjustable stud mount ball socket
- 5/16" mounting hardware included

Part No.	Description
723103	Post Office White
723104	Black

Replaceable front crossview for US PS LLV and CRV - see page 17. For brackets, see page 29

The Wedge™ Stick-On Convex Mirror

- Unique wedge design provides more usable viewing area/larger image size than conventional stick on mirrors
- Universal design permits use on both driver and passenger mirrors
- Black plastic shell with rounded corners gives mirror a "built-in" look
- 3.25" overall size with 8.5 ROC
- Mounts easily and securely using attached adhesive pad

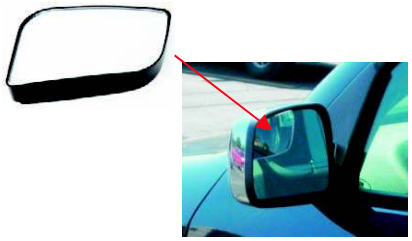
Part No.	Description
723068	Wedge Stick-on Mirror
723068-6	50 Pack Wedge Mirror

Stick-On Convex Spot Mirrors

- Lightweight aluminum shell
- Mount easily and securely using attached adhesive pad
- Attractive packaging displays easily on pegboards or wire display racks (See page 141 for wire display rack Part No. 091256)

Part No.	Size	ROC
723050	2" Round	4.5"
723060	3" Round	4.5"
723065	3.75" Round	4.5"
723075	4" x 5.5" Rectangle	8.5"

HHR Spotter Mirror



- Reduce blind spots on GM HHR
- Mounts directly to OE side mirrors*
- Lower portion of flat glass is open for passing lane viewing
- Size is approx 2.5" x 3.25" with 7.3 sq. in. viewing area, 8.5" ROC

Part No.	Description
718394-5	Pair - Right & Left Side

**Other applications include van, pickup and SUV mirrors*

Interior Rearview Mirror

- Glass measures 9" x 2"
- Day/Night feature reduces night driving glare
- Dual ball joint adjustment
- Textured black housing
- Mounting pad and adhesive sold separately as mirror mounting kit
- Rearview mirror will fit on flange type mounting pads up to .90 wide

Part No.	Description
723095	Rearview Mirror
723097	Mirror Mounting Kit

Over Door Convex Mirror

- Mounts above exterior passenger side window for greater blind spot visibility
- Used as an accessory mirror on heavy trucks for better viewing directly below "peek-a-boo" window
- 4" x 8" convex mirror - 12"ROC
- Assembly includes stainless steel mirror head with mounting bracket

Part No.	Description
715198	Over Door Convex Mirror

Universal Strap-On/Off Mirrors

- Universal design fits either driver or passenger side mirrors on most vehicles
- Durable black mirrors strap quickly and securely to existing mirror for extended view around wide loads
- No tools required

Part No.	Description
715203	Strap-On Towing Mirror 5" x 7.5" mirror head

7.5" x 10.5" Camper Style Mirror Head

- Camper style mirror head for use on GM low mount van and cutaway mirror systems
- Direct replacement for Delbar HR-1164
- Stainless steel construction
- 63 square inch flat glass area
- Complete with 3/8" - 16 x 2.25" mounting bolt and hardware

Part No.	Description
716138-5	7.5" x 10.5" Camper Style

**The Wedge™ is a trademark of Velvac, Inc*

7.5" x 10.5" Center Bracket Flat Glass Mirror Heads

- Over 63 sq. in. viewing area
- 1/8" FSC glass
- Rolled edge design holds glass and gasket securely in place
- Mirror glass NOT replaceable

Part No.	Description
709002	Stainless Steel
709006	Stainless/Heated
709275	Flat Black
709276	White

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Side Mount Wide Angle Mirror Heads

VELVAC Original

- The original Velvac wide angle mirror head for use on walk in van, cutaway van, cab chassis and a variety of other applications
- 5/16" - 18 threaded mounting port for a clean, easy installation. Use with mounting clamp 704068 on page 31
- 1/8" replaceable FSC glass on all flat glass models except UPS brown which is silvered. Silvered glass on all convex

6.5" x 6" Flat Glass

- Viewing Area 32 sq. in.

6.5" x 10" Flat Glass

- Viewing Area 55 sq. in.

6.5" x 6" Convex

- Viewing Area 32 sq. in.
- 21" ROC

Finish	Part No.	Glass	Gasket	Part No.	Glass	Gasket	Part No.	Glass	Gasket
STEEL									
Stainless	**704093**	**702051**	**703005**	**704091**	**702076**	**703007**	**704095**	**702023**	**703005**
Stainless - Heat	—	—	—	**704325**	**702076**	**703007**	**704315**	**704335**	**703005**
White	**704078**	**702051**	**703005**	**704032**	**702076**	**703007**	**704077**	**702023**	**703005**
PLASTIC									
White	**704178-5**	**702051**	**703101**	**704132-5**	**702076**	**703102**	**704177-5**	**702057**	**703101**
PO White	—	—	—	**704122**	**702076**	**703102**	**704120**	**704121**	**703101**
UPS Brown	**704158**	**702051**	**703103**	**704154**	**702076**	**703104**	**704155**	**702057**	**703103**
Black	**704159**	—	**703103**	**704152-5**	**702076**	**703104**	**704153-5**	**702057**	**703103**

Stud Mount Mirror Heads

- Center mount wide angle mirror heads feature Velvac's DuraBall nylon ball stud for superior strength and durability (see page 6 for DuraBall information)
- 5/16" - 18 mounting stud. Use with mounting clamp 704068 on page 31
- 1/8" replaceable FSC glass on flat glass models, 1/8" silvered glass on convex mirrors

VELVAC Original

6.5" x 6" Convex

- Viewing Area 32 sq. in.
- 21" ROC

6.5" x 10" Flat Glass

- Viewing Area 55 sq. in.

Shatter Resistant 6.5" x 10" Convex

- Viewing Area 55 sq. in.
- 40" ROC, shatter resistant backing on glass

Finish	Part No.	Glass	Gasket	Part No.	Glass	Gasket	Part No.	Glass	Gasket
Stainless	**708156**	**702023**	**703006**	**708181**	**702076**	**703008**	**708198-5**	**702098-5**	**703008**
White	—	—	—	—	—	—	**708176-5**	**702098-5**	**703007**
Ford White	**704280**	**702023**	**703005**	**704268**	**702076**	**703007**	—	—	—
Black	—	—	—	—	—	—	**708197-5**	**702098-5**	**703008**

Velvac's Mod Pod™ and K-10 Version-2 Hood Mount Assemblies

The popular Velvac Mod Pod and K-10 Version-2 (V-2) mirror systems incorporate a lock down feature that offers superior stability and easy adjustments. To position the mirror, simply loosen the set screw with a 5/32" allen wrench, lift and rotate the mirror arm into proper viewing or fold back position then retighten the set screw. Precision gears set at 12 degree intervals ensures a perfect view every time!

- Aerodynamic design - corrosion resistant stainless steel tubing brackets with chrome-plated die cast mounting base for long lasting attractive appearance
- (4) 1/4" - 20 mounting studs are factory assembled to the base for easy installation on either conventional or COE trucks
- Velvac Mod Pod mirror kits features Velvac's 8.5" DuraBall with nylon ball joint system, so superior it is guaranteed for five years against cracking or breaking (see page 6 and 7 for details)
- K-10 V-2 mirror kits feature an 8.5" Eyeball convex mirror (see page 8 for details)

Mod Pod™ is a trademark of Velvac, Inc.

	Description	VELVAC Bracket Only	VELVAC Kit w/8.5" DuraBall Convex	VELVAC Kit w/8.5" DuraBall Wide View	K-10 Bracket Only	K-10 Kit w/8.5" Eyeball Mirror	K-10 Kit w/8.5" K-10 Convex
	UNIVERSAL ADJUSTABLE						
Bent Arm	Kit with bent and straight arms	**714622**	**714620**	**714621**	–	–	–
Straight Arm	Kit with straight arm only	–	–	–	**714646** (512929-V2)	–	–
	Kit with bent arm only	–	–	–	**714647** (512659-V2)	**716915** (V2659-50)	**716914** (V2659-08)
	FIXED ARM DUAL VIEW						
	Right Side	**714630**	**714626**	**714628**	**714648** (512658-V2)	**716913** (V2658-50)	–
	Left Side	**714631**	**714627**	**714629**	**715529** (512657-V3)	**716922** (V2657-50)	–
	FIXED ARM SIDE VIEW						
	Lane Change	**714625**	**714623**	**714624**	–	–	–
	K-10 Slant Arm	–	–	–	**714649** (512661-V2)	**716917** (V2661-50)	**716916** (V2661-08)
	K-10 Angle Arm	–	–	–	**715620** (512662-V2)	**716919** (V2662-50)	**716918** (V2662-08)
	For K-10 numbers order by Velvac Part Number				*(K-10 Part No.)*		

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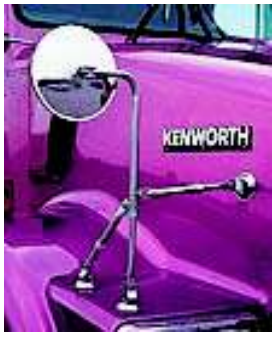
HOOD MOUNT MIRRORS (cont.)

Velvac offers a full line of standard and short arm adjustable tripod mirror models to meet the needs of any vehicle or application. From our unique stylized Aero-Bell to our value tripod, we have the right mirror for your truck.

Aero-Bell™ Tripod

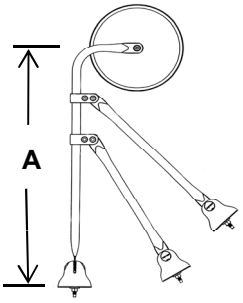
- Stylized single piece chrome plated ABS bells and molded nylon clamps help conceal hardware giving the mirror a clean, aerodynamic appearance
- Corrosion resistant materials eliminate rust keeping the mirror and truck looking great

Velvac Tripod



- All stainless steel construction and hardware
- Standard tripod for use on traditional hood styles - short tripod for slope nosed vehicles with shorter hoods

Value Tripod



- All stainless steel construction with plated hardware
- Adjustable tripod fits most hood / fender applications

Product Specifications

Description	Aero - Bell Tripod	Velvac Tripod	Value Tripod
Tubing Braces	SS	SS	SS
Convex Mirror Head	8.5" SS DuraBall	8.5" SS DuraBall	8.5" SS Three Screw
Mounting Bells	Molded/Chrome Plate ABS	SS	SS
Tube Clamps	Molded Black Nylon	SS	SS
Hardware	SS	SS	Plated
Packaging	Display Box	Display Box	Plain Box

Standard Tripod	Part No.	Dim "A"	Part No.	Dim "A"	Part No.	Dim "A"
Mirror and Bracket Kit	**715150**	21" to 32.75"	**713444**	21"-32.75"	**715779**	26" to 35"
Bracket Kit Only - head not included			**713445**		**715778**	
Short Tripod						
Mirror and Bracket Kit	**715148**	17.5" to 24.5"	**714721**	17.5" to 24.5"		
Bracket Kit Only - head not included			**714720**			
Fixed Arm Mirror / Bracket						
Columbia & Century	**715168**	20.35"				
Freightliner - FLD	**715166**	23.55"				

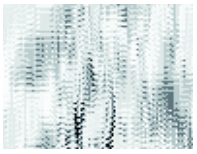
Aero-Bell™ is a trademark of Velvac, Inc

REAR CROSS VIEW MIRROR SYSTEMS

Straight Van Chassis Applications

- Kits include mirror head, bracket and stainless steel mounting hardware
- Assemblies include either a Velvac 8.5" Wide View convex or an 8.5" K-10 Eyeball convex mirror

Tripod Kits

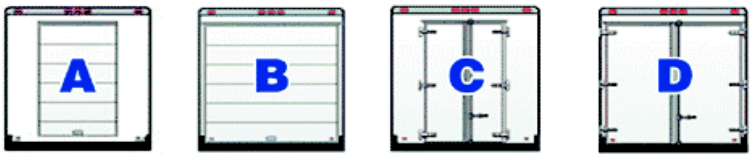


Vehicle	Finish-Head & Bracket	VELVAC Bracket/8.5" Wide View Convex	VELVAC Bracket Only	K-10 MIRRORS Bracket/8.5" Eyeball Convex	K-10 MIRRORS Bracket Only
1992 and newer Ford E-Van	White	**713120**	**713118**	–	–
	SS	**713121**	**713119**	**716908** *512648-50S*	**713204** *512648*
1997 and newer GM G Van	White	**713796**	–	–	–
	SS	**713798**	–	**716909** *513993-50S*	**713993** *513993*
Dodge & older GM & Ford Vans	White		–	**716929** *512646-50S*	
	SS	**712640**	**712638**	–	–
Sprinter Van	SS Brkt w/blk 10" ABS	–	–	**716902** 512650SP-10ABS	–

Walk-in Van Bodies

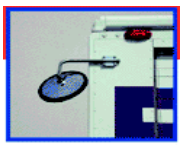
- Universal mounting bracket fits walk-in vans and vehicles with flat mounting surfaces
- Kits include mirror head, reinforced 3/4" O.D. tubing arm, heavy-duty mounting brackets and SS hardware
- Assemblies include either a 10" Velvac Wide View convex or a 10" K-10 Eyeball convex mirror.

Rear Van Door Styles

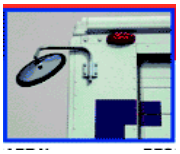


Roll-up Narrow | Roll-up Full | Hinged Narrow | Hinged Full

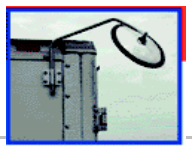
Rear Panel Standard Mount



Rear Panel Breakaway Mount



Side Panel Mount



Rear Door Style	Finish-Head & Bracket	VELVAC Bracket/10" Wide View Convex	VELVAC Bracket ONLY	K-10 MIRRORS Bracket/10" Eyeball	K-10 MIRRORS Bracket ONLY
A or C	White	**712644**	**712642**	–	–
A or C	SS	**712643**	**712641**	**716906** *(512650SP-10ABS)*	**712647** *(512647)*
A or C	SS			**716907** *(512647-10S)*	**713752** *(512647-2)*
D	SS			**716903** *(512650SP-10S)*	**715101** *(512650-SP)*
D	SS with Blk ABS			**716902** *(512650SP-10ABS)*	**715101** *(512650-SP)*

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REAR CROSS VIEW MIRROR SYSTEMS (cont.)

RXV™/Corner Rotator

- Designed to mount easily to structural rear corner of walk-in van or high cube bodies - fits on 90° corner with up to 1.5" radius
- Includes factory assembled spring loaded bracket with Velvac 10" Wide View or K-10 Eyeball convex mirror head
- Mirrors are designed to fold away either to the side or rear and can be rotated back to the preset viewing position

RXV /Corner Rotator

		VELVAC		K-10 MIRRORS	
Rear Door Style	Finish-Head & Bracket	Bracket/10" Wide View Convex	Bracket Only	Bracket/10" Eyeball	Bracket Only
A,B or C	White	**715213**	–	–	–
A,B or C	SS	**715212**	–	**716901** *(512651-10S)*	**714403** *(512651)*
A,B or C	SS w/ blk ABS Head	–	–	**716900** *(512651-10ABS)*	**714403** *(512651)*

RXV™ is a tradename of Velvac, Inc.

VAN AND CAB CHASSIS MIRRORS

- Universal van and pick-up mirrors are designed to fit various straight van, cutaway van and pick-up truck bodies - single adjusting leg allows bracket to be properly oriented on different model doors
- Other assemblies shown below feature fixed 3/4" tubing brackets designed for specific vehicle types and provides a custom fit for those specified vehicles and applications
- Retractable mirrors can be folded away for storage or upon impact and then returned to the preset viewing position

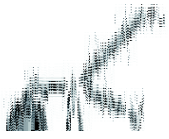
Universal Van and Pick-Up Truck

Retractable

Non-Retractable

Part No.	Finish	Bracket Style	Body Type Width	Vehicles
714673	SS	Retractable	Straight Van	Ford E Van, GM G Van and Dodge Ram Van
714675	SS	Non Retractable	96" Cutaway	
714672	SS	Retractable	Pick-Up	Older model GM Silverado, Ford F Series and Dodge Ram Truck
714674	SS	Non Retractable	96" Cab Chassis	

Wide Body Cutaway Van



Part No.	Finish	Bracket Style	Body Type Width	Vehicles
713786	SS	Non Retractable	96" Cutaway	1997 & Newer GM G Van
713785	White	Non Retractable	96" Cutaway	
713113	SS	Non Retractable	96" Cutaway	1992 & Newer Ford E Van
713787	White	Non Retractable	96" Cutaway	

Straight Van

Part No.	Finish	Bracket Style	Body Type Width	Vehicles
713104	SS	Retractable	Straight Van	1992 & Newer Ford E Van
713105	White	Retractable	Straight Van	
713789	SS	Retractable	Straight Van	1997 & Newer GM G Van
713787	White	Retractable	Straight Van	

Wide Body

Part No. 713407

Part No.	Finish	Bracket Style	Body Type Width	Vehicles
713407	SS	Retractable	96" Cutaway Truck	1980 - 1997 Ford F Series Truck
712908	SS	Retractable	96" Cab Chassis	1987 - 1998 GM CK Truck

Sprinter Van Body Mirror

- Powder coated loop and cast mounting ends fit directly into older OE mounting base (not included)
- Includes 6/5" x 10" upper flat glass head and 6.5" x 6" lower convex
- For use up to 86" wide body applications

***NOTE**: For Sprinter rear cross view mirror see page 13*

Part No.	Application	Description	Finish
715704	Sprinter	Complete Pair	Black
Q781280		Loop with mounting ends	Black

Universal Low Mount Mirror System and Accessories

- Low mount mirror kit includes SS bracket system, solid SS elbow and 7.5" x 10.5" mirror head
- Wide angle conversion kit includes 6.5" x 6" convex and SS tube support for blind spot viewing
- Mirror heads provide over 63 square inches of flat viewing area. (See page 9 for more information)

Low mount Mirror Kit

Part No. 712245

Part No.	Description	Finish
712479	Low mount Mirror Kit -Brkt, Head Elbow - Pair	SS
748216	Replacement Elbow	SS
712245	Wide Angle Conversion Kit - One Side	SS

Door / Fender Mirror System

- Complete kit includes one door mount head / bracket and one fender mount head / bracket
- All stainless steel construction

Fender Mount Assembly

Door Mount Assembly

Part No.	Description
713883	1997 and Newer GM G Van - Door / Fender - Complete Pair
713154	1992 and Newer Ford E Van - Door / Fender - Complete Pair

Colorado Canyon Pickup Mirrors

Wide Body Mirror for Chevy Colorado and GMC Canyon Pick-Up Truck Chassis

- Provides views around 78" bodies to increase driver safety with enhanced view of passing lanes and blind spots
- Large 11.10 square inch convex with 12.5" ROC targets blind spots
- 56.62 square inch flat glass area
- Mirrors fold forward and back for easy storage
- Black finish for OE appearance

Part No.	Description
715885	Complete Pair
715886	Right Side Mirror
715887	Left Side Mirror
715888	Right Side Mirror Head with Convex
715889	Left Side Mirror Head with Convex
723106	Right Side Convex
723107	Left Side Convex
702086	Flat Glass Kit

** SS = Stainless Steel*

Truck and Tractor Mirrors

- Versatile head and loop assembly for flat side mounting on fire trucks and other specialty vehicles
- Bracket mounting span of 31.5" x 8.18" from body leg length
- All stainless steel construction with preset pivot breakaway system

NOTE: *See catalog page 3 for more information* on motorized mirror head. See page 4 for OE *V-back West Coast.*

Part No.	Description	Finish	Upper Head	Lower Head
713760	Complete Pair	Stainless Steel	8" x 16" motorized heated West Coast Mirror	6.5" x 6" convex
713769	Complete Pair	Stainless Steel	7" x 16" OE V-back West Coast Mirror	6.5" x 6" convex
713759	Replacement loop bracket, Mounting feet and hardware	Stainless Steel	N/A	N/A

Universal Bracket Kit and Head / Loop System

- Universal SS bracket kit is fully adjustable to fit a variety of conventional straight truck and tractor doors, extends out a maximum of 20" from door
- Use head and loop assemblies in combination with universal bracket kit to produce a complete major system for conventional truck and tractors - loop span is 17.56"
- All kits shown below are packaged as pairs. Loop and clamp kits include both short clamps for use with split wide angle heads and long clamps for West Coast heads

Conventional Tractor Bracket Kit

*Split Head**

*West Coast ***

Part No.	Description	Finish	Upper Head	Lower Head
700064	Universal conventional tractor bracket kit	Stainless Steel	N/A	N/A
701001	Head and loop - split head	White	6.5" x 10"	6.5" x 6"
701006	Head and loop - split head	Stainless Steel	6.5" x 10"	6.5" x 6"
701050	Head and loop - West Coast	White	7" x 16"	N/A
701054	Head and loop - West Coast	Stainless Steel	7" x 16"	N/A
701071	Loop and clamp kit	White	N/A	N/A
701072	Loop and clamp kit	Stainless Steel	N/A	N/A

**See page 10 for replacement mirror heads*

***See page 5 for replacement mirror heads*

Walk-In Van Mirrors

- Universal mirrors include an adjustable loop mounting bracket and will fit most walk-in van applications
- Fixed custom mirrors include a fixed loop bracket for specific mounting applications
- All mirrors include 6.5" x 10" upper flat glass head and 6.5" x 6" lower convex

Fixed Custom

Universal Adjustable Loop

Part No.	Application	Description	Finish	Mounting Centers	Loop Leg Length
Universal					
721090	Various	Complete Pair	Stainless Steel	22" to 36.5"	8"
721092	Various	Loop and brackets	Stainless Steel	22" to 36.5"	8"
Fixed Custom					
712323	Grumman (Morgan) Utilimaster	Complete Pair	Stainless Steel	30.57"	10.50"
713404	Utilimaster	Complete Pair	Stainless Steel	33.33"	11.69"
724007	Various	Complete Pair	Stainless Steel	30.37"	10.42"
724008	Various	Complete Pair	Stainless Steel	33"	8"
727067	Various	Complete Pair	White	33"	8"

United States Post Office Mirrors

NOTE: All USPS Mirrors are manufactured to USPS OE requirements and are USPS White

Front Cross view

Side Mirror

VELVAC Original

Rear Cross View

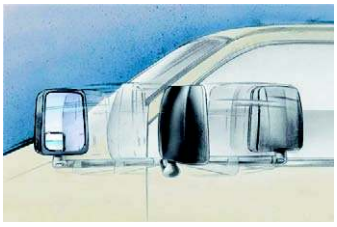
LLV Mirrors	Kit Part No.	Replacement Flat Mirror Head	Dimension	Replacement Convex Mirror Head	Dimension
Right Side Mirror	**712896**	**704122**	6.5" x 10"	**704120**	6.5" x 6"
Left Side Mirror	**712897**	**704122**	6.5" x 10"	**704120**	6.5" x 6"
Front Cross View Mirror	**712898**	—		**723103**	8" diameter
Rear Cross View Mirror	**712900**	—		**709226**	10" diameter
CRV Mirrors					
Right Side Mirror	**714782**	**704122**		**704120**	6.5" x 6"
Left Side Mirror	**714783**	**704122**		**704120**	6.5" x 6"
Front Cross View Mirror	**714784**	—		**723103**	8" diameter
Rear Cross View Mirror	**714785**	—		**709226**	10" diameter
Other USPS Mirrors					
Rear Cross View Mirror	**714146**	(Ford Aerostar)		**708463**	8.5" diameter
Rear Cross View Mirror	**714147**	(Ford Windstar)		**708463**	8.5" diameter
Rear Cross View Mirror	**715786**	(Dodge Caravan)		**708463**	8.5" diameter

2020 VAN AND CAB CHASSIS MIRRORS

Velvac's 2020 and 2020XG family of mirrors feature OE fit and styling, and provide outstanding visibility of passing lanes and blind spots areas around the vehicle making them the industry standard for wide body cutaway van and truck cab chassis applications. These mirrors mount directly to the OE sail area on the door for clean and easy installation. The modular design allows a single mirror style to be used across multiple van and truck platforms making them perfect for all OE and fleet applications.
In addition to the original 2020 mirrors, Velvac now offers a new 2020 Mini-LEM system with integrated camera options and our new 2020XG - the next generation in wide body mirror technology

Model 2020 Mirror System

Model 2020 mirrors are designed specifically for wide body applications such as high cube cutaway vans, rental trucks, Class C RV's and ambulances. The fixed length arms are designed to position the mirror beyond the body providing the driver with an unobstructed view of blind spots and passing lanes around the vehicle. These versatile mirrors are available in several body widths and finishes as well as manual or heated remote glass.



Unique pivot design

- Mirrors available for 86", 96" and 102" wide bodies
- Die cast arms and bases are e-coated and powder coated for corrosion resistance
- Available in black, white and black base/arm with chrome head
- Two mirror head options - **Standard** Head with lower Wedge convex - **Deluxe** Head with full width lower convex
- Fold away feature allows mirrors to fold forward and back for easy vehicle storage and protection against impacts

Standard Head *Deluxe Head*

Model 2020 Mini-LEM Mirror System

Velvac has added the exclusive pre-positioned lower camera option to the 2020 mirror providing even greater coverage of the blind spot areas around the vehicle. These mirrors are available with either a black and white CCD camera or the featured CMOS color camera for even greater clarity and object detection.

- Camera image is reversed to provide a picture in the same orientation as the mirror image for seamless observation of blind spots and passing lanes
- CMOS color camera with infrared LED's provide greater image definition, truer colors and anti-blooming technology allowing drivers to quickly identify objects in a variety of light conditions
- Systems can be designed to integrate with back-up cameras for complete vehicle blind spot coverage. See catalog pages 33-35 for more information on Velvac's back-up cameras and CMOS camera technology

Mini-LEM Camera

2020 Mini-LEM with turn signal option in flat glass

2020 VAN AND CAB CHASSIS MIRRORS (cont.)

A combination of styling, quality and performance make the 2020XG the new benchmark for wide body mirror systems. The fully integrated arm, base and mirror head not only look great, but work together as a system to reduce vibration, and provide large, clear views of the blind spots and passing lanes around the vehicle. Since these mirrors are designed specifically for 96" and 102" wide bodies , they provide a complete vision solution without the compromises found in many OE mirror offerings available today.

Model 2020XG Mirror Systems

Style/Value

- Fully integrated base, arm and mirror head for a clean OEM look
- "Swept back" design prepositions the mirror in the optimal location- no head adjustment necessary
- Stylized mirror base fits directly in the OEM "sail area" mounting holes
- Rigid design for better stability and image clarity
- Easily replaceable mirror head, glass and arm components help reduce downtime and service costs

Quality

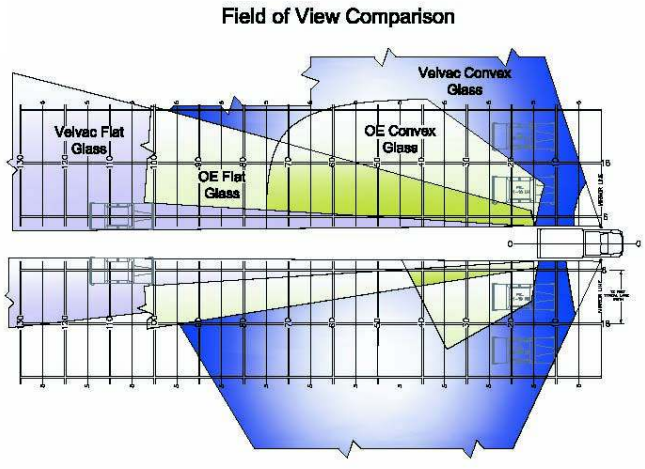
- Die cast aluminum mounting base and upper arm are e-coated and powder coated for corrosion protection
- OE-approved plastic mirror shell and lower arm deliver durability and UV resistance
- Pivot system allows the mirror to be folded forward or back upon impact and returned easily to the normal driving position

Increased safety

- Advanced vibration dampening in mirror head keeps image steady even on rough road surfaces
- 63 sq. in. flat glass and 29.5 sq. in. convex glass with 18" radius of curvature provides great visibility of the passing lanes and blind spots around the vehicle

Field of View Coverage

Field of view diagram shows the superior vision and blind spot coverage provided by Velvac 2020 and 2020XG mirrors relative to typical OE mirrors used on a wide body applications. Velvac's 2020 and 2020XG mirrors can help to reduce blind spots and provide visibility of multiple passing lanes around the vehicle leading to better driving decisions and the reduction of costly accidents.



FOV coverage- Velvac (blue), OE (amber)

Information shown above represents a typical vision pattern when using Velvac 2020 or 2020XG mirrors compared to a typical OE option mirror

Most cutaway van and cab chassis OE mirrors are not designed for body widths that extend beyond 96 & 102 inches. Misuse of these narrow OE mirrors leads to obstructed views and dangerous blind spots and may not fully meet all DOT mirror requirements based on these applications.
Be confident that your wide body vehicle meets or exceeds FMVSS 111 requirements for Rear View Mirrors-

USE OR SPECIFY VELVAC 2020, 2020 MINI-LEM or 2020XG MIRRORS

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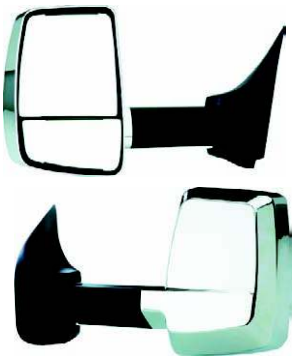
2020 VAN AND CAB CHASSIS MIRRORS (cont.)

Model 2020 and 2020XG Mirrors

Standard w/ Wedge Convex

Deluxe w/ Full Convex

Camera



XG

	Model 2020	Model 2020 Mini-LEM	Model 2020 XG
Vehicle Applications	Ford E Van, GM G Van, GM 3500, Ford Superduty and 650 / 750	Ford E Van, GM G Van, GM 3500, Ford Superduty and 650 / 750	Ford E Van, GM G Van, GM 3500, Ford Superduty and 650 / 750
Standard Body Widths	78", 86", 96", 102"	86", 96", 102"	96", 102"
Finishes	White, Black, Black Arm & Base with Chrome Head	White, Black or Black Arm & Base with Chrome Head	White, Black or Black Arm & Base with Chrome Head
Head Styles Available	Standard and Deluxe	Deluxe	Integrated 2020 Head
Flat Glass	Standard 57 sq inch Deluxe 62 sq inch	62 sq inch	64 sq inch
Convex Glass	Wedge 10 sq inch 8" ROC Full Convex 30 sq inch 12" ROC	30 sq inches - 12" ROC	29 sq inches - 18" ROC
Glass Options	Standard Head - Manual or Heated Remote Deluxe Head-Manual or Heated Remote Flat / Heated Convex	Manual or Heated Remote Flat / Heated Convex	Manual or Heated Remote Flat / Heated Convex
Light Options	Lighted Arm	Lighted Arm or Signal Arrow in Glass	Lighted Head and/or Signal Arrow in Glass
Camera Option		Color or Black and White	

OEM OPTION CODES - Refer to pages 21-23 for additional mirror configurations

Chassis	Option Code	Mirror Type	Mirror Information
GM G-Van Cutaway	DHC	96" Black Manual 2020XG	Mirrors shipped with vehicle
	6M2	78" Black Manual 2020	
	8D8	No OE Mirror	Vehicle comes with GM door harness and control switches - Then order mirror directly from Velvac using part number shown on page 23
Ford F650 - F750	54H	96" Black Manual 2020XG	Mirrors installed on vehicle
	54J	102" Black Manual 2020XG	
Ford E-Van Cutaway	NA	No OE mirror standard	Order mirrors directly from Velvac - refer to page 21

** Need to submit inquiry to Ford for VSO option package*

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2020 VAN AND CAB CHASSIS MIRRORS (cont.)

2003 and Newer Ford E-Series Cutaway Van Mirrors

Color	Body Width	Head Type*	Flt* Gls	Cx* Gls	Option*	2020 Mirror System			2020 Mini-LEM System with Color Camera			2020XG Mirror System ALL w/ 2020XG heads		
						Pair**	Rt Side	Lft Side	Pair**	Rt Side	Lft Side	Pair**	Rt Side	Lft Side
Black	86"	Std	M			715401	715402	715403						
		Std	H/R			715419	715420	715421						
	96"	Std	M			715404	715406	715405						
		Std	H/R			715422	715424	715423						
		Std	H/R		Ltd.	715455	715456	715457						
		Deluxe	M	M		715449	715450	715451	716593	716594	716595	715899	715900	715901
		Deluxe	H/R	H/M					716605	716606	716607	715905	715906	715907
		Deluxe	H/R	H/M	Ltd.	715437	715438	715439	716641	716642	716643	716346	716348	716347
		Deluxe	H/R	H/M	SO				716623	716624	716625	716343	716344	716345
		Deluxe	H/R	H/M	SO Ltd.				716659	716660	716661			
	102"	Std	M			715407	715408	715409						
		Std	H/R			715425	715426	715427						
		Std	H/R		Ltd.	715458	715460	715459						
		Deluxe	M	M		715452	715454	715453	716590	716592	716591	715923	715924	715925
		Deluxe	H/R	H/M					716602	716604	716603	715929	715930	715931
		Deluxe	H/R	H/M	Ltd.	715440	715442	715441	716638	716640	716639	716322	716324	716323
		Deluxe	H/R	H/M	SO				716620	716622	716621	716319	716320	716321
		Deluxe	H/R	H/M	SO Ltd.				716656	716658	716657			
White	86"	Std	M			715410	715412	715411						
		Std	H/R			715428	715430	715429						
	96"	Std	M			715413	715414	715415						
		Std	H/R			715431	715432	715433						
		Deluxe	M	M					716599	716600	716601	715902	715904	715903
		Deluxe	H/R	H/M					716611	716612	716613	715908	715910	715909
		Deluxe	H/R	H/M	Ltd.	715443	715444	715445	716647	716648	716649	716382	716384	716383
		Deluxe	H/R	H/M	SO				716629	716630	716631	716379	716380	716381
		Deluxe	H/R	H/M	SO Ltd.				716665	716666	716667			
	102"	Std	M			715416	715418	715417						
		Std	H/R			715434	715436	715435						
		Deluxe	M	M					716596	716598	716597	715926	715928	715927
		Deluxe	H/R	H/M					716608	716610	716609	715932	715934	715933
		Deluxe	H/R	H/M	Ltd.	715446	715448	715447	716644	716646	716645	716370	716372	716371
		Deluxe	H/R	H/M	SO				716626	716628	716627	716367	716368	716369
		Deluxe	H/R	H/M	SO Ltd.				716662	716664	716663			
Chrme Head w/ Black Arm and Base	96"	Deluxe	H/R	H/M					716617	716618	716619	715953	715954	715955
		Deluxe	H/R	H/M	Ltd.				716653	716654	716655	716414	716416	716415
		Deluxe	H/R	H/M	SO				716635	716636	716637	716411	716412	716413
		Deluxe	H/R	H/M	SO Ltd.				716671	716672	716673			
	102"	Deluxe	H/R	H/M					716614	716616	716615	715971	715972	715973
		Deluxe	H/R	H/M	Ltd.				716650	716652	716651	716394	716396	716395
		Deluxe	H/R	H/M	SO				716632	716634	716633	716391	716392	716393
		Deluxe	H/R	H/M	SO Ltd.				716668	716670	716669			

** Key to Chart Abbreviations: Std = Standard, M = Manual, H/R = Heated Remote Control Adjustable Glass, H/M = Heated Manual, Ltd. = Lighted Arm (2020), Lighted Head (2020XG), SO = Signal Arrow in Glass, Flt = Flat, Cx = Convex*

*** All motorized mirror PAIRS include switches and wire harnesses. These items are NOT included when motorized mirrors are sold as sides.* ***NOTE:*** *2020XG Chrome = chrome head with black arm and base*

NOTE*: Pre-2003 mirror service parts can be found on www.velvac.com by searching with a keyword "1992-2002 Ford"*

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2020 VAN AND CAB CHASSIS MIRRORS (cont.)

Chevrolet and GM Cutaway Van Mirrors

Color	Body Width	2020 Head Type*	Flt* Gls	Cx* Gls	Option*	2020 Mirror System			2020 Mini-LEM System with Color Camera			2020XG Mirror System ALL w/ 2020XG heads		
						Pair**	Rt Side	Lft Side	Pair**	Rt Side	Lft Side	Pair**	Rt Side	Lft Side
Black	78"	Deluxe	M	M		718389-5	718390-5	718391-5						
	86"	Std	M			714601	714602	714603						
		Std	H/R			714604	714606	714605						
		Deluxe	M	M		714591	714592	714593						
	96"	Std	M			714557	714558	714559						
		Std	H/R			714563	714564	714565						
		Std	H/R		Ltd.	714569	714570	714571						
		Deluxe	M	M		714545	714546	714547	716707	716708	716709	715911	715912	715913
		Deluxe	H/R	H/M					716719	716720	716721	715917	715918	715919
		Deluxe	H/R	H/M	Ltd.	714551	714552	714553	716755	716756	716757	716352	716354	716353
		Deluxe	H/R	H/M	SO				716737	716738	716739	716349	716350	716351
		Deluxe	H/R	H/M	SO Ltd				716773	716774	716775			
	102"	Std	M			714560	714562	714561						
		Std	H/R			714566	714568	714567						
		Std	H/R		Ltd.	714572	714574	714573						
		Deluxe	M	M		714548	714550	714549	716704	716706	716705	715935	715936	715937
		Deluxe	H/R	H/M					716716	716718	716717	715941	715942	715943
		Deluxe	H/R	H/M	Ltd.	714554	714556	714555	716752	716754	716753	716328	716330	716329
		Deluxe	H/R	H/M	SO				716734	716736	716735	716325	716326	716327
		Deluxe	H/R	H/M	SO Ltd				716770	716772	716771			
White	96"	Std	H/R			714916	714918	714917						
		Std	M			714910	714912	714911						
		Deluxe	M	M					716713	716714	716715	715914	715916	715915
		Deluxe	H/R	H/M					716725	716726	716727	715920	715922	715921
		Deluxe	H/R	H/M	Ltd.	714904	714906	714905	716761	716762	716763	716388	716390	716389
		Deluxe	H/R	H/M	SO				716743	716744	716745	716385	716386	716387
		Deluxe	H/R	H/M	SO Ltd				716779	716780	716781			
	102"	Std	M			714913	714914	714915						
		Std	H/R			714919	714920	714921						
		Deluxe	M	M					716710	716712	716711	715938	715940	715939
		Deluxe	H/R	H/M					716722	716724	716723	715944	715946	715945
		Deluxe	H/R	H/M	Ltd.	714907	714908	714909	716758	716760	716759	716376	716378	716377
		Deluxe	H/R	H/M	SO				716740	716742	716741	716373	716374	716375
		Deluxe	H/R	H/M	SO Ltd				716776	716778	716777			
Chrme	96"	Deluxe	H/R	H/M					716731	716732	716733	715962	715964	715963
		Deluxe	H/R	H/M	Ltd.				716767	716768	716769	716420	716422	716421
		Deluxe	H/R	H/M	SO				716749	716750	716751	716417	716418	716419
		Deluxe	H/R	H/M	SO Ltd				716785	716786	716787			
	102"	Deluxe	H/R	H/M					716728	716730	716729	715980	715982	715981
		Deluxe	H/R	H/M	Ltd.				716764	716766	716765	716435	716436	716437
		Deluxe	H/R	H/M	SO				716746	716748	716747	716397	716398	716399
		Deluxe	H/R	H/M	SO Ltd				716782	716784	716783			

** Key to Chart Abbreviations: Std = Standard, M = Manual, H/R = Heated Remote Control Adjustable Glass, H/M = Heated Manual, Ltd. = Lighted Arm (2020), Lighted Head (2020XG), SO = Signal Arrow in Glass, Flt = Flat, Cx = Convex*

*** All motorized mirror PAIRS include switches and wire harnesses. These items are NOT included when motorized mirrors are sold as sides.* ***NOTE:*** *2020XG Chrome = Chrome head with black arm and base.*

NOTE*: GMC Silverado mirror assemblies can be found on www.velvac.com by searching with a keyword "Silverado"*

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2020 VAN AND CAB CHASSIS MIRRORS (cont.)

Ford Super Duty F-250 to F-750

NEW

Color	Body Width	2020 Head Type*	Flt* Gls	Cx* Gls	Option*	2020 Mirror System			2020XG Mirror System ALL w/ 2020XG heads			2020XG Mirror System w/OAT for F450 - F550 ***		
						Pair**	Rt Side	Lft Side	Pair**	Rt Side	Lft Side	Pair**	Rt Side	Lft Side
Black	86"	Std	M			715141	715154	715153						
	96"	Std	M			714527	714528	714529						
		Std	H/R			714533	714534	714535						
		Std	H/R		Ltd.	714539	714540	714541						
		Deluxe	M	M		714515	714516	714517	716355	716356	716357	717379	717380	717381
		Deluxe	H/R	H/M					716358	716360	716359	717181	717182	717183
		Deluxe	H/R	H/M	Ltd.	714521	714522	714523	716364	716366	716365	717174	717176	717175
		Deluxe	H/R	H/M	SO				716361	716362	716363			
	102"	Std	M			714530	714532	714531						
		Std	H/R			714536	714538	714537						
		Std	H/R		Ltd.	714542	714544	714543						
		Deluxe	M	M		714518	714520	714519	716331	716332	716333	717382	717384	717383
		Deluxe	H/R	H/M					716334	716336	716335	717187	717188	717189
		Deluxe	H/R	H/M	Ltd.	714524	714526	714525	716340	716342	716341	717184	717186	717185
		Deluxe	H/R	H/M	SO				716337	716338	716339			
White	102"	Deluxe	H/R	H/M	Ltd.	715131	715132	715133						
Chrme	96"	Deluxe	H/R	H/M					716423	716424	716425			
		Deluxe	H/R	H/M	Ltd.	715859	715860	715861	716429	716430	716431			
		Deluxe	H/R	H/M	SO				716426	716428	716427			
	102"	Deluxe	H/R	H/M					716402	716404	716403			
		Deluxe	H/R	H/M	Ltd.				716408	716410	716409			
		Deluxe	H/R	H/M	SO				716405	716406	716407			

** Key to Chart Abbreviations: Std = Standard, M = Manual, H/R = Heated Remote Control Adjustable Glass, H/M = Heated Manual, Ltd. = Lighted Arm, Chme = Chrome, SO = Signal Arrow in Glass*

*** All motorized mirror PAIRS include switches/harnesses - except new mirrors with OAT.*

**** New mirrors with OAT (outside air temperature) connect directly to OE harness and are controlled by Ford heat, power and light controls for fast and easy installation*

2020XG - For GM Cutaway Van Chassis with 8D8 Option

Color	Body Width	Flat Glass	Convex Glass	Option*	2020XG Mirror Systems			Replacement Mirror Heads	
					Pair**	Rt Side	Lft Side	Rt Side	Lft Side
Black	96"	H/R	H/R		718416	718418	718417	716012	716011
		H/R	H/R	Ltd.	718419	718420	718421	716522	716521
		H/R	H/R	SO	718422	718424	718423	716516	716515
	102"	H/R	H/R		718425	718426	718427	716012	716011
		H/R	H/R	Ltd.	718428	718430	718429	716522	716521
		H/R	H/R	SO	718431	718432	718433	716516	716515
Chrme	96"	H/R	H/R		718434	718436	718435	716056	716055
		H/R	H/R	Ltd.	718437	718438	718439	716526	716525
		H/R	H/R	SO	718440	718442	718441	716520	716519
	102"	H/R	H/R		718443	718444	718445	716056	716055
		H/R	H/R	Ltd.	718446	718448	718447	716526	716525
		H/R	H/R	SO	718449	718450	718451	716520	716519

NEW

- Mirrors connect directly to OE door harness and are controlled by OE switches - makes installation fast and easy

** Mirrors shown above are used on GM cutaway van chassis with 8D8 option. This option provides OE door harness and control switches with the chassis -Velvac switch and harness not included, and not required for installation*

Replacement mirror heads are shown in chart above - see page 25 for replacement glass kits

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2020 VAN AND CAB CHASSIS MIRRORS (cont.)

Model 2020SS Shuttle Mirror System

- Door / Fender mirror systems available to fit both GM G Van and Ford E Van Chassis -96" or 102" body width
- Superstar™ manual mirror with unitized flat and convex glass system - 51.5 Sq In flat / 23.5 Sq In Convex
- Deluxe mirror with independently adjustable flat and convex glass - 63.3 Sq In flat / 30 Sq In Convex
  - Available options include
    - Manual
    - Heated Remote flat glass - heated convex
    - Heated Remote flat and convex glass
    - Turn signal arrow in flat glass*
    - Integral camera in lower housing of mirror head*
- Complete mirror system includes LS door mirror, RS fender mirror, all hardware and switches

Deluxe mirror head w/ Mini LEM

Superstar

Color	Body Width	2020 Head Type*	Flat Glass	Cnvx Glass	Options	GM G Van			Ford E Van		
						Pair	Rt Side	Lft Side	Pair	Rt Side	Lft Side
	96"	**Supstar**	M	M		718503	718502	718501	728503	728502	728501
		Deluxe	M	M		718525	718526	718527	728525	728526	728527
		Deluxe	M	M	Ltd.	718531	718532	718533	728531	728532	728533
		Deluxe	M	M	SO	718537	718538	718539	728537	728538	728539
		Deluxe	R	M		718509	718508	718507	728509	728508	728507
		Deluxe	R	M	Ltd.	718543	718544	718545	728543	728544	728545
		Deluxe	R	M	SO	718549	718550	718551	728549	728550	728551
		Deluxe	H/R	H		718515	718514	718513	728515	728514	728513
		Deluxe	H/R	H	Ltd.	718555	718556	718557	728555	728556	728557
		Deluxe	H/R	H	SO	718561	718562	718563	728561	728562	728563
		Deluxe	H/R	H/R		718521	718520	718519	728521	728520	728519
		Deluxe	H/R	H/R	Ltd.	718534	718536	718535	728534	728536	728535
		Deluxe	H/R	H/R	SO	718573	718574	718575	728573	728574	728575
	102"	**Supstar**	M	M		718506	718504	718505	728506	728504	728505
		Deluxe	M	M		718530	718528	718529	728530	728528	728529
		Deluxe	M	M	Ltd.	718579	718580	718581	728579	728580	728581
		Deluxe	M	M	SO	718540	718542	718541	728540	728542	728541
		Deluxe	R	M		718512	718510	718511	728512	728510	728511
		Deluxe	R	M	Ltd.	718546	718548	718547	728546	728548	728547
		Deluxe	R	M	SO	718552	718554	718553	728552	728554	728553
		Deluxe	H/R	H		718518	718516	718517	728518	728516	728517
		Deluxe	H/R	H	Ltd.	718558	718560	718559	728558	728560	728559
		Deluxe	H/R	H	SO	718564	718566	718565	728564	728566	728565
		Deluxe	H/R	H/R		718524	718522	718523	728524	728522	728523
		Deluxe	H/R	H/R	Ltd.	718570	718572	718571	728570	728572	728571
		Deluxe	H/R	H/R	SO	718576	718578	718577	728576	728578	728577

NEW

** Key*
M-Manual
H/R-Heat/Rmt
R-Remote
Ltd.- Light Arm
SO - Signal in Glass

Superstar™ is a trademark of Velvac, Inc.

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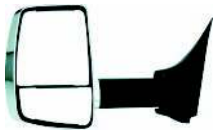
2020 MIRROR REPLACEMENT PARTS

2020 and 2020XG Mirror Replacement Parts and Accessories

Deluxe Head

Standard Head



	2020 Deluxe Head		2020 Standard Head		2020XG Mirror RS GM Topkick - Kodiak	2020XG Mirror LS GM Topkick - Kodiak	2020XG Mirror RS Ford and GM Van	2020XG Mirror LS Ford and GM Van
	RS	LS	RS	LS				
MIRROR HEADS								
White Manual			714576	714576			715988	715987
White H/R Flat - Man Convex	714590	714589	714578	714578			715992	715991
White H/R with lower marker lamp							716507	716506
White H/R with signal arrow							716500	716501
Black Manual	714580	714579	714575	714575	715986	715985	715986	715985
Black H/R Flat - Man. Convex	714582	714581	714577	714577	716012	716011	715990	715989
Black H/R with lower marker lamp							716504	716505
Black H/R with Signal Arrow	716974	716973					716498	716499
Chrome H/R Flat	714608	714607					715998	715997
Chrome H/R with lower marker lamp							716508	716509
Chrome H/R with Signal Arrow	716434	716433					716502	716503
Black 2015 Replacement Head***			714256	714256				
White 2015 Replacement Head***			714258	714258				
GLASS KITS								
*Manual Flat Glass			709407	709407				
Htd Flat/for manual and htd glass	709448	709448	709748	709748	716104	716103	716104	716103
Heated Flat with Signal arrow	709674	709673			709994	709995	709994	709995
Htd Convex-for manual & htd glass	709449	709449			709932	709931	716106	716105
**Convex repair kit	709589	709589						
Wedge Stick on Convex Only			723068	723068				
Flat glass retaining clip					709422	709422	709422	709422
Convex glass retaining clip					709855	709855	709855	709855

*Includes bezel and Wedge convex **Includes glass, inner housing, clip and actuator H/R = heated/remote

***Model 2015 Replacement Head only, same head used for both left & right sides

Model 2020 Parts

Light

Harness

Switch Kit.

Part No.	Description
747524	Switch Kit Ford E Van
747632	Switch Kit GM G Van and C 3500
747633	Switch Kit Ford F Superduty 650 - 750
748304	12' HR Wire Harness Pass Door to Driver Door
747551	Marker light below elbow
709785	Cover Plate Kit for GMC Top Kit (includes plate, gasket and hardware)

Model 2020XG Parts

Switch Kit

Harness

Arm Covers

Part No.	Description
747855	Switch Kit Ford E Van
747856	Switch Kit GM G Van and C 3500
747901	Switch Kit Ford F Superduty 650 - 750
747863	12' HR Wire Harness Pass Door to Driver Door Fits Ford or GM
709993	Marker light

Part No.	Description
716107	Black 96" Arm Cover Kit*
716113	Black 102" Arm Cover Kit*
716109	White 96" Arm Cover Kit*
716115	White 102" Arm Cover Kit*

** Kit is for a pair, includes hardware*

VELVAC®
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CLASS A RV, BUS AND TRUCK MIRRORS

Velvac's line of side mount and corner mount mirrors are designed with a focus on safety, quality and styling. Typical applications include Class A motorhomes, motorcoach, fire truck and rescue vehicles. Produced from high quality materials, these mirrors can be configured to meet specific customer and application requirements

Mirror Systems

Model 2025

Shown with Deluxe Head

- Mirror system mounts to the flat side of the vehicle allowing the mirror to be viewed through the side window

Revolution™

Shown with V-MAX™ head

- Mirror base pivot system mounts to flat side of vehicle and allows mirror to be folded forward or back upon impact of for vehicle storage

Model 2030

Shown with Deluxe Head and add-on Top Hat ™ Convex

- Corner mounting base available with 9", 10", 11", 12" or 15" radius - contact Velvac for custom applications
- Mirror arm lengths available from 10", 12", 14" or 17". This allows mirrors to be viewed through the windshield or side windows

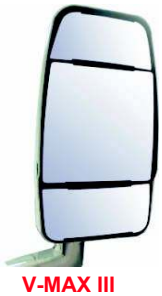
Available Features / Options

- Deluxe, V-MAX™ or V-MAX III™ mirror heads
- Top Hat™ add on convex for Deluxe head
- Chrome plated or powder coated finish
- Easily replaceable manual or heated remote glass
- Lower marker lamp on arm or Signal Arrow in the flat glass
- Lower LEM camera with LED marker lamp

Mirror Heads

Deluxe

V-MAX



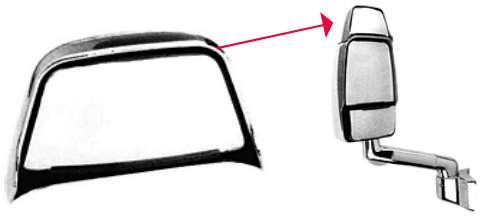
V-MAX III

V-MAX III with LEM

	Flat Glass		Lower Convex Glass			Upper Convex Glass		
Mirror Head	**Sq Inch**	**Size**	**Sq Inch**	**Size**	**Radius**	**Sq Inch**	**Size**	**Radius**
Deluxe	62.3	8" x 8"	30	8" x 4"	12"	N/A	N/A	N/A
V-MAX	98.7	8" x 13"	30	8" x 4"	21"	N/A	N/A	N/A
V-MAX III	72.5	8" x 9"	30	8" x 4"	21"	26.4	8" x 3.3"	21"
Top Hat	N/A	N/A	N/A	N/A	N/A	17.8"	6" x 3.5"	12.5"

Revolution ™, V-Max™, V-MaxIII™ and Top Hat™ are trademarks of Velvac, Inc.

Top Hat Add-On Convex Mirror



- Installs easily on top of Deluxe head for added visibility of blind spots or other vision targets
- Fits on either driver side or passenger side mirror

Part No.	Description
715372	Black Top Hat
715373	White Top Hat
715374	Chrome Top Hat

REPLACEMENT HEADS AND GLASS KITS

Finish	Deluxe	V-MAX	V-MAX III	V-MAX LEM 2025 Base	V-MAX LEM 2030 Base	V-MAX III LEM 2030 Base	Top Hat
White RS	714590	714946	—	—	—	—	715373**
White LS	714589	714947	—	—	—	—	—
Black RS	714582	714944	716146	716208	716190	716154	715372**
Black LS	714581	714945	716147	716207	716189	716155	—
Chrome RS	714608	714942	716144	716206	716188	716152	715374**
Chrome LS	714607	714943	716145	716205	716187	716153	—

GLASS KITS	Deluxe	V-MAX	V-MAX III	V-MAX LEM 2025 Base	V-MAX LEM 2030 Base	V-MAX III LEM 2030 Base	Top Hat
Heated Flat Right or Left	709448	709450	709732	709450	709732	709732	—
Heated Flat with Blinker RS	709674	—	709702	—	709702	709702	—
Heated Flat with Blinker LS	709673	—	709701	—	709701	709701	—
Lower Convex RS / LS	709449	709650	709650	709650	709650	709650	—
Upper Convex Glass	—	—	709733	—	709733	709733	—
Lower Convex Housing RS / LS	709589	709651	709651	709651	709651	709651	—

**RS = Right Side, LS=Left Side ** Top Hat fits either driver side or passenger side*

***NOTE**: All heads shown are heated remote flat glass. Camera not included with replacement LEM heads see WWW.VELVAC.COM or contact us directly for additional service parts or assistance .*

Mirror Covers / Bras and Wiper Covers

Fitted Covers and Bras

- Fitted covers and bras constructed from ultra Hi-grade, eight way stretch vinyl for durability and easy care
- Extreme duty plastic/stainless zipper for easy, quick on/off
- Protects mirror mechanisms and mirror chrome/finish from damaging air borne contaminanents and salt build up
- Protects against bees, wasps, mud daubers and birds.
- Provides a glove-like custom fit
- The bra clips on to the side of the mirror- glass remains visible

Slipcovers and Wiper Covers

- Slipcovers and wiper covers are made of 100% Textilene, a woven polyester mesh fabric coated with PVC
- Blocks up to 80% harmful UV rays and heat
- Outdoor fabric for warmer climates, open weave allows the air to circulate and not retain moisture

Fitted Covers and Bras

Part No.	Description
744005	Standard Fitted Cover
744006	Deluxe Fitted Cover
744007	Triple Glass Fitted Cover
744008	V-MAX Fitted Cover
744009	V-MAX w/TH Fitted Cover
744012	Standard Head Bra
744013	Deluxe Head Bra
744014	Triple Glass Bra
744015	V-MAX Bra
744016	V-MAX with TH Bra

**TH = Top Hat*

Slipcovers and Wiper Covers

Part No.	Description
744001	15" Black Slipover Cover
744002	20" Black Slipover Cover
744003	28" Wiper Blade Cover
744004	33" Wiper Blade Cover

See page 137 for our complete line-up of wiper blades!

Mirror Polish

Part No.	Description
747785	Flitz Metal Polish (5.29 oz)
747786	Flitz Microfiber Polishing cloth (16" x 16")

To help to keep your chrome mirrors looking GREAT we recommend the use of **Flitz chrome metal polish** It is specially important to clean the chrome prior to long vehicle storage or to remove road salts which can lead to oxidation or the loss of chrome adhesion

Clamp and Tubing Arm Kits for 6", 8"and 8-1/2" Mirror Heads

- Ideal for adding an auxiliary spot mirror to existing loop or brace
- For 3/4" O.D. tubing
- Plastic coated clamp for secure grip and mar resistance
- Overall length 6"

Part No.	Description
723057	Stainless Steel
748269	UPS Brown Power-Coated Galvanized Steel

Clamp and Tubing Arm Kit for 5" and 6" Plastic Mirror Heads

- Stainless steel formed tube arm
- Zinc plated steel clamp
- Ideal for adding an auxiliary spot mirror to existing loop or brace
- For 5/8" and 3/4" O.D. tubing
- Overall length 5-7/16"

Part No.	Description
723049	Stainless Steel Tubing

6" Pivot Bolt Mounting Bracket

- Ideal for adding an auxiliary spot mirror below a West Coast mirror head
- Stainless steel construction
- Overall length 4-7/8"

Part No.	Description
723055	For 5/6" and 3/8" Pivot Bolts

"L" Style Locking Bracket

- Sturdy 1/8", 11 gauge construction
- Pivot hole accepts 5/16" and 3/8" bolts
- Slotted hole provides additional mirror head adjustment
- Ideal for mounting Velvac DuraBall® convex and all other convex mirrors

Part No.	Description
723100	Stainless Steel

Replaces Velvac Part No. 723080

Adjustable Tubing Arms

- Universal adjustable support
- 10-1/2" long threaded led with extension adjustment from 19" to 25"
- Threaded leg can be cut to reduce minimum overall length
- Available in stainless steel and powder-coated galvanized steel finishes

Part No.	Description
747070	Stainless Steel
747072	Black

Sleeve and Nut Kit

- For conventional and step van brace and adjustable bracket assemblies
- Brass sleeve and chrome nut

Part No.	Description
748215	Sleeve and Nut Kit

Bracket Mount Mirror

- Attaches easily to West Coast mirror bracket on any truck
- All stainless steel construction

Part No.	Description
712648	Two Arm Bracket

Bracket and hardware ONLY- mirror head sold separately (see pages 6 - 8)

Fender Mount Extension Bracket

- Adjustable from 13-1/2" to 17-1/2"
- Bell mount base provides extra support
- Stainless steel construction
- Mounting hardware included

Part No.	Description
723047	Fender Mt Ext Bracket

Bracket and hardware ONLY- mirror head sold separately (see pages 6 - 8)

Switch Kit for Heated Mirrors

- Dash mounted kit controls one to two heated mirror heads

Part No.	Description
747053	Switch Kit for Htd Mirror

Nylon Clamp Kit for 3/4" O.D. Tubing

- Non-corrosive black nylon clamp
- Recessed fasteners provide a custom look
- Kit includes clamp and hardware

Part No.	Description
748416	Clamp Kit - Includes Clamp and Hardware for 3/4" O.D. Tubing

Tubing Brace Clamp Kit for 3/4" O.D. Tubing

- Used to support tubing arms on loop assemblies - *not for installing mirror heads*
- Kit includes stainless steel clamp and mounting hardware

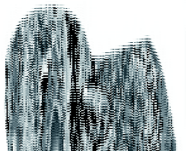
Part No.	Description
748029	Tubing Brace Clamp Kit for 3/4" O.D. Tubing

Flat Clamp Kit for 3/4" O.D. Tubing

- Used to mount West Coast mirror heads to 3/4" O.D. tubing - mounts on horizontal leg of loop
- Plastic coating for secure grip and mar resistance
- Kit includes stainless steel clamp and mounting hardware

Part No.	Description
704066	Flat Clamp Kit for 3/4" O.D. Tubing

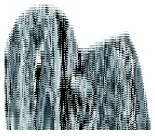
Clamp Kit for 1" O.D. Tubing



- Used to mount side and stud mount mirror heads to 1" O.D. tubing
- Plastic coating for secure grip and mar resistance
- Kit includes stainless steel clamp and mounting bolt

Part No.	Description
704070	Clamp Kit for 1" O.D. Tubing

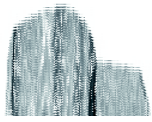
Clamp Kit for 3/4" O.D. Tubing



- Used to mount side and stud mount mirror heads to 3/4" O.D. tubing
- Plastic coating for secure grip and mar resistance
- Kit includes stainless steel clamp and mounting bolt

Part No.	Description
704068	Clamp Kit for 3/4" O.D. Tubing

Clamp Kit for 5/8" O.D. Tubing



- Used to mount side and center mount mirror heads to 5/8" O.D. tubing
- Kit includes two-piece aluminum clamp and stainless steel mounting hardware

Part No.	Description
704069	Clamp Kit for 5/8" O.D. Tubing

Standard Mounting Cabfeet Kits

- Used on non-preset style loops
- Heavy-duty 90º bracket permits a variety of mounting applications
- Cabfeet mounting holes are 2" on center
- Available in stainless steel and powder-coated galvanized steel finishes
- Kits include cabfeet and hardware to mount one pair of mirrors

Part No.	Description
757015	Stainless Steel
757016	White

Twist Clamp Kit for 3/4" O.D. Tubing

- Used to mount West Coast mirror heads to 3/4" O.D. tubing - mounts on vertical leg of loop
- Plastic coating for secure grip and mar resistance
- Kit includes stainless steel clamp and mounting hardware

Part No.	Description
704065	Twist Clamp Kit for 3/4" O.D. Tubing

Non-Preset Pivot Kit

- Replacement kit for mirrors with Velvac non-preset pivot end and Velvac mirrors with standard pivot
- 5/16" - 18 x 1" stainless steel bolt
- Kit contains parts for one complete non-preset pivot end

Part No.	Description
748012	Non-Preset Pivot Kit

Rubber Preset Pivot Kit

- Replacement kit for mirrors with Velvac rubber preset pivots and Velvac mirrors with rubber washer style preset
- 5/16" - 18 x 1-1/2" stainless steel bolt
- Kit contains parts for one complete preset pivot end

Part No.	Description
748009	Rubber Preset Pivot Kit

Spring Preset Pivot Kit

- Replacement kit for mirrors with standard Velvac spring preset systems and UPS walk-in vans with Velvac mirrors
- Can be used to upgrade mirrors with rubber washer preset to a spring preset for improved pivot action
- Stainless steel rivet plate extends live of loop and improves pivot action on mirrors with worn preset rivets
- 5/16" - 18 x 2" stainless steel bolt
- Kit contains parts for one complete spring preset pivot end

Part No.	Description
712979	Spring Preset Pivot Kit

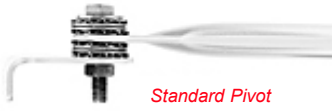
Preset Rivet Plate

- Designed for use on all Velvac preset loops except those with tension control stop preset as found in kit Part No. 748371
- Two stainless steel rivet plates extend life of loop and improve pivot action on mirrors with worn preset rivets
- Mounts easily between existing mirror loop and preset lock plate

Part No.	Description
748377	Preset Rivet Plate Kit

Heavy-Duty Preset and Pivot Upgrade Kit

Preset Pivot



Standard Pivot

- Designed for use on all Velvac preset loops except those with tension control stop preset as found in kit Part No. 748371
- Improves pivot holding force on mirrors with large loops or large/ heavy mirror head combinations
- Unique spring/washer combination retains pivot system torque to keep mirror in set viewing position until moved and provides superior detent action for foldaway applications
- Life cycle tested to over 50,000 pivot cycles
- Preset rivet plate fits over existing preset rivets to extend life of loop and improve cycle performance
- Easy retrofit - can be completed without taking mirror assembly off the vehicle
- 5/16" - 18 x 1-3/4" stainless steel pivot bolt and 5/16" - 18 x 2" stainless steel preset bolt
- Kit contains all upper and lower pivot hardware for one mirror assembly

Part No.	Description
748355	Heavy-Duty Preset and Pivot Upgrade Kit

***NOTE**: Kit can be used to upgrade mirror loops with standard rubber or spring preset systems (similar to Part No. 748009 or 712979 detailed on this page) order one Part No. 748355 per side*

Vision Systems 33-37

Emerging technologies for collision avoidance and driver assistance hold great promise for the future. But even in cases where sensor systems provide the best reaction times, observation of traffic information, routing information and object avoidance all still rely primarily on a clear view by the human eye.

Velvac has developed several camera-based vision systems for medium and heavy duty commercial vehicles, motor homes and transit buses designed around the suggested optimal height and width recommendations identified by such authorities as NHTSA, CUTR and DOT. These systems provide the driver with dedicated views of blind spots and passing lanes around the vehicle, resulting in an intuitive visual experience that improves safety and reduces the potential for costly and dangerous accidents.

NEW — Indicates a new product added to catalog

VELVAC Original — Indicates an original Velvac® product

Revised Part No. — Indicates a revised part number

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For quantity and packaging information, refer to our price list.

Customer Solutions 800.783.8871
Fax: 262.786.4101
Email: sales@velvac.com

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Aero-Bell, ALL STAR, ClearCam, Mod Pod, Revolution, RXV, Superstar, Top Hat, V-MAX, V-MAX III and Wedge are trademarks of Velvac, Inc.

VELVAC® In the Passing Lane Since 1934

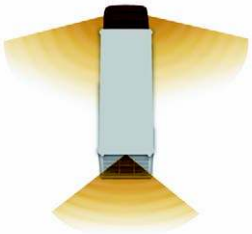
Camera Systems

- Building a camera system is fast and easy.
- Follow the steps below by first determining the target areas you wish to view, and then select the cameras, brackets and monitors to meet those needs
- All components are designed to easily connect and work together to produce a seamless system to meet all your vision and blind spot viewing requirements

Determine which blind spot area you wish to see- side view, rear view or both

Side View

Rear View



Side and Rear View

Choose a camera or cameras to meet your viewing and blind spot needs

Side View Cameras

- Velvac offers both traditional mount side view cameras shown below, as well as side view CMOS cameras integrated into the Velvac 2020 Mini-LEM and V-MAX and V-MAX III LEM mirror systems

2020 Mini-LEM- see page 18-25

V-MAX III- see page 26

Fixed Side Mount

Fixed Side Mount Camera

- High resolution color
- LED low light enhancement
- Waterproof housing
- Viewing angle: 95° H, 75° V
- Power 12Vdc
- Cylindrical 3/4" through hole mount

Part No.	Side	Housing
709941	Left	Gray primer
709942	Right	Gray primer
709949	Left	Chrome
709948	Right	Chrome

Back-up Cameras

- Velvac offers a variety of rear vision cameras including our exclusive flush mount back-up camera as well as adjustable block style and fixed mount cameras
- Flush mount back-up and fixed top mount cameras feature digital CMOS* image processing while adjustable bracket cameras utilize CCD* image technology. While both provide great image clarity, CMOS cameras help to reduce blooming effects caused by headlights and direct sun. The addition of infared LED provides visibility even in low light or no light conditions

Flush Mount Back-up Camera

Flush Mount Back-up Camera

- Integrated flush-mount provides clean appearance with no exposed wires or hardware
- Camera angle preset to provide the optimum visibility with no adjustments
- LED low light enhancement
- Excellent low light/high bright performance w/IR LED assist
- Utilizes high performance color optics Super CMOS technology with 95° vert FOV
- Includes backing plate, gasket and hardware

Part No.	Description
709910	Flush Mtd. Rear-view

** CMOS- Complimentary Metal Oxide Semiconductor, CCD- Charged Couple Device*

Adjustable Back-up Camera

Part No. 709952

Part No. 710011

- Manually adjustable camera mounting angle with external aluminum bracket and SS hardware
- Built-in microphone for enhanced safety with audio output (through the monitor) while backing
- LED low light enhancement
- Waterproof housing
- Power 12Vdc
- External bracket mount and mounting hardware included

Part No.	Hsg. Color	Camera	Viewing H	Viewing V
709912	White	Color	104°	78°
709952	Black	Color	104°	78°
709964	White	B&W	120°	90°
709965	Black	B&W	120°	90°
710011	Black	Color	95°	77°

Fixed Top Mount Back-up Camera

- High resolution color
- LED low light enhancement
- Waterproof housing
- Integrated flush-mount provides clean appearance with no exposed wires or harnesses
- Viewing angle: 75°H, 95° V
- Power 12Vdc
- Cylindrical 3/4" through hole mtd

Part No.	Description
709950	Gray primer housing
709951	Chrome housing

Select a Monitor

Part No. 709915

Part Nol 709916

Part No. 716314

- Velvac's color 5.6" and 7" LCD monitors are designed for heavy duty and commercial truck applications- built and tested to withstand extreme road conditions such as vibrations, electrostatic discharge, humidity and temperature changes and to deliver high quality images to the driver.
- 5", 5.6" and 7" monitors include audio speaker with volume
- Velvac's 3.5" color monitor in a rear view mirror provides the ultimate in safety and convenience. The image is invisible while in drive and only activates when the camera trigger is engaged.

Part No.	Screen	Camera Inputs	Power	Width	Height	Depth	Mounting
709915	5.6" Color LCD	(2) A/V	12V dc	5.875"	5.25"	1.25"	4-hole amps pattern
709916	7" Color LCD	(3) A/V	12V dc	7.75"	5.25"	1.25"	4-hole amps pattern
709953	7" Multi* Color LCD	(4) A/V	12V dc	7.75"	5.25"	1.25"	4-hole amps pattern
716314	3.5" Color LCD	(1) A/V	9-16V	9.45"	3.63"	1.5"	Universal windshield mt.

** Part No. 709953 includes multi-image view modes- split screen (2-way), tri-view (3-way), and quad view (4-way); ALL other monitors have single screen viewing capability*

***NOTE** : Monitors 709915, 709916 and 709953 require the addition of mounting brackets shown on page 35.*

Select a Monitor Mount and Cables

Cable quantity and length will vary based on number of cameras and distance from camera to monitor

Cables

NEW

- Measure length from camera to to monitor
- Select cable from chart below
- Cables can be connected together to create various lengths

Part No.	Description
747850	15' LCD cable
747864	25' LCD cable
747865	34' LCD cable
747866	50' LCD cable
747867	75' LCD cable
747881	24' CRT cable
747882	34' CRT cable
747883	65' CRT cable

Monitor Mounts

790563

790564

790567

790576

Part No.	Description
790563	4" Single knuckle monitor mount (4-hole amps pattern) bracket with thumbscrew
790564	6" Double knuckle monitor mount (4-hole amps pattern) bracket with thumbscrew
790567	Dropdown Overhead 7" monitor mount bracket
790576	Double knuckle monitor mount for 1" ball

Three Camera Controller

Part No.	Description
716318	(3) Camera Controller

- Allows a single camera input monitor to be converted to accept (3) cameras simultaneously
- This controller allows different views to automatically engage based on triggers for left/right turn signals or reverse
- This flexible control box can be wired for full time viewing of the rear camera if needed

Back-up Camera Kits

NEW

- Velvac has assembled several Back-up Camera Kits for ordering convenience
- Contact Velvac for your custom kit requirements

Kit Part No.	Camera Part No.	Monitor Part No.	Monitor Mount Part No.	Cable Length
709921	709912	709915	790563	34' 1 of 747865
709954	709912	709916	790563	34' 1 of 747865
716046	709910	709915	790576	34' 1 of 747865
717252	709910	709915	790576	50' 1 of 747866
717253	709910	709915	790576	65' 1 of 747866 (50') + 1 of 747850 (15')
717254	709910	709916	790576	34' 1 of 747865
717255	709910	709916	790576	50' 1 of 747866
717256	709910	709916	790576	65' 1 of 747866 (50') + 1 of 747850 (15')
710134	709910	716314	(Not Required)	34' 1 of 747865
717257	709910	716314	(Not Required)	50' 1 of 747866
717258	709910	716314	(Not Required)	65' 1 of 747866 (50') + 1 of 747850 (15')
717259	710011	709915	790576	34' 1 of 747865
717260	710011	709915	790576	50' 1 of 747866
717261	710011	709915	790576	65' 1 of 747866 (50') + 1 of 747850 (15')

VELVAC AERO CAM VISION SYSTEM

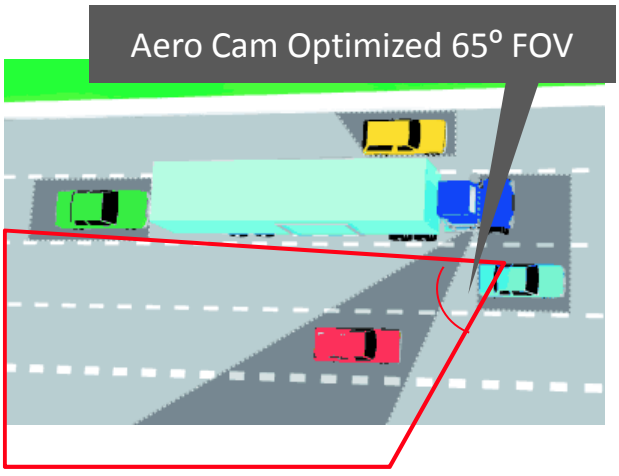
Blind Spot Elimination for Heavy Duty Trucks

NEW

The Velvac Aero Cam is a camera-based vision system that provides the driver with clear and dedicated views of blind spots and passing lanes around the vehicle, resulting in improved safety and reduced potential for costly and dangerous accidents.

According to NHTSA, depth perception and object recognition are the keys to safe vehicle operation. With an optimal 65º viewing angle, CMOS vision processor, and camera positioned above the splash zone, the Aero Cam system clearly displays the most critical vision targets allowing the driver to make faster and safer driving decisions. With its smaller profile compared to conventional convex mirrors, the Aero Cam is also designed to reduce drag resulting in improved vehicle aerodynamics which is a major contributor to improving fuel economy and reducing fuel consumption.

Kits available for Volvo and PACCAR Vehicles



Available with right side and left side dedicated dash mounted monitors as shown above - systems also available to tie directly into Paccar Nav system monitors - Nav monitor image shown on page 37.

Aero Cam Features:

NEW

- Provides a clear view along the side of the truck and trailer to reduce blind-spots and improve driver safety
- Optimized camera field of view provides better depth perception with less distortion - objects in blind sports appear larger and easier to recognize on the color monitor
- Chrome plated aluminum mounting base with four hole mounting pattern for fast and easy installation - same hole pattern as Velvac Pod and Mod Pod mirros for easy retrofits
- Custom kits for PACCAR and Volvo vehicles are designed for specific hood geometry and wire routing
- 1" OD SS tubing arm can be rotated within the mounting base providing fine camera angle adjustment - rotates upon impact to reduce the potential for camera system damage
- CMOS camera technology produces superior imaging and accurate colors even in extreme light conditions and harsh weather
    - (-40° to 85° C / -40° to 185° F) CMOS
    - Built-in anti-blooming protection to maintain visibility under sunlight, glare and headlight conditions
    - Superior depth perception
    - Vibrant colors & clarity
- Integrates seamlessly into the Kenworth NavPlus® and Peterbilt SmartNav™ monitors
- For a complete solution, a DVR and rear view camera can be integrated into the Aero Cam System to provide full coverage

NavPlus Home Screen

NavPlus with Image from Aero Cam

Part numbers shown below are available only thru Volvo or Paccar dealers

Standard Aero Cam Kits with Dedicated Monitors				
Vehicle Models	**Pair**	**Right Side**	**Left Side**	**Kit Contents**
Volvo VNL	**717096**			Pair includes RS and LS Aero Cam, tow dash mounted monitors, cables, routing and mounting hardware. Sides include RS or LS AeroCam, one monitor, cables and hardware
Volvo VNM	**717269**			
Kenworth T700	**717376**	**717378**	**717377**	
All Other PACCAR Vehicles	**717327**	**717328**	**717329**	

Aero Cam Kits for PACCAR Vehicles Equipped with SmartNav or NavPlus Systems				
Vehicle Models	**Pair**	**Right Side**	**Left Side**	**Kit Contents**
Kenworth T700	**717373**	**717374**	**717375**	Pair includes RS and LS Aero Cam, cables to interface with Nav system monitors and hardware. Sides include RS or LS AeroCam, cables and hardware.
All Other PACCAR Vehicles	**717324**	**717326**	**717325**	

Air Products 39-67

From gladhands to slack adjusters to seat valves, Velvac is your full system provider for critical and convenient air components for your commercial vehicle. Our extensive line of air products are designed and manufactured in TS-certified facilities to exceed government and industry specifications.

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NEW — Indicates a new product added to catalog

VELVAC Original — Indicates an original Velvac® product

Revised Part No. — Indicates a revised part number

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VELVAC® In the Passing Lane Since 1934

Iron Gladhands with Polyurethane Seals

Lifetime guarantee covers both gladhands and seals!

- Solid, one-piece construction
- Service and emergency gladhand color-coated for easy identification
- Color-coded polyurethane seal included
- Positive, spring loaded locking mechanism keeps gladhand properly positioned
- 1/2" FPT port
- Gladhands meet SAE J318 requirements including breakaway requirement

Part No.	Description
035031	Universal Gladhand with Black Polyurethane Seal
035032	Emergency Gladhand with Red Polyurethane Seal
035033	Service Gladhand with Blue Polyurethane Seal

Shutoff Gladhands

- Lightweight die cast aluminum bodies
- Clamp plates are color-coded for easy identification
- Polyurethane seal included
- 1/2" or 3/8" nylon air tube fitting
- Emergency gladhand with 1/4" - 18NPT port for pintle hook air line fitting
- Meets SAE J318 requirements

Part No.	Description
035094	3/8" Service Gladhand
035095	3/8" Emergency Gladhand
035173	1/2" Service Gladhand
035174	1/2" Emergency Gladhand

Premium Powder Coated Gladhand

- Available in service and emergency color coding
- Powder coated aluminum improves corrosion resistance
- Polyurethane seals improve resistance to oil and chemicals
- Bright color coding allows for easy brake line identification
- Stainless steel wear plates are resistant to corrosion and improve service life
- Meets SAE J318
- 1/2" FPT port

Part No.	Description
035169	Powder Coated Service Gladhand with Polyurethane Seal
035170	Powder Coated Emergency Gladhand with Polyurethane Seal

Aluminum Gladhands

HELPFUL HINT:
For the Greatest Corrosion Resistance Try Velvac's Powder Coated or Plated Style Gladhand

- Velvac's most economical Gladhand!
- Clamp plates are color-coded for easy identification
- All include flat rubber coupling seal
- 1/2" FPT port
- Meets SAE J318 requirements

Part No.	Description
035038	Universal Gladhand
035042	Emergency Gladhand
035045	Service Gladhand

37˚ Bracket Mount Gladhands

- Lightweight die cast aluminum bodies
- Clamp plates are color-coded for easy identification
- Color-coded polyurethane seal included
- (2) 3/8" FPT ports (one plugged)
- (2) 11/32" diameter mounting holes
- Gladhands meet SAE J318 requirements

Part No.	Description
035092	Service Gladhand
035093	Emergency Gladhand

Shutoff Gladhands

- Lightweight die cast aluminum bodies
- Clamp plates are color-coded for easy identification
- Rubber seal included
- Includes mounting seal to prevent corrosion between gladhand and trailer
- Metal inner ball for increased wear ability
- Meets SAE J318 requirements
- 3/8" - 18 port

Part No.	Description
035152	Emergency Shutoff
035151	Service Shutoff

Pivoting Gladhands

- Spring loaded to safely swing out of the way when not in use
- Seals out contaminants when not in use
- 3/8" - 18 NPTF ports

Part No.	Description
035167	Blue - Service
035168	Red - Emergency

Polyurethane Gladhand Seals

- Color-coded seals will not crack or tear, reducing maintenance time and cost associated with rubber seal replacement
- Available in attractive display box with 25 sets of seals (set consists of 4 seals per bag, 2 red and 2 blue) See page 139.

Part No.	Description
035009	Red Polyurethane Seals
035010	Blue Polyurethane Seals
035011	Black Polyurethane Seals
035012	Display Box with Seals

"Pacifier" Gladhand Seal

- Reusable gladhand sealing device protects air lines from dust, debris and moisture

Part No.	Description
035142	"Pacifier" Gladhand Seal

Plated Aluminum Gladhands

With E-Coating

- E-Coated aluminum improves corrosion resistance and provides better protection than typical zinc plating
- E-Coated aluminum gladhand body with a full face plate
- Service and Emergency gladhands have a powder coated face plate for increased corrosion resistance
- Universal gladhand has a zinc plated face plate for increased corrosion resistance
- Rubber Seal
- Meets SAE J318 Specs
- Color coded for easy hose identification
- Emergency is polarized to eliminate incorrect hose connections
- Cost saving angle mount eliminates the need for extra mounting hardware

Part No.	Description	Replaces Haldex-Midland Number	Connection Thread
035143	Plated - Service	11452	1/2" Pipe Thread
035144	Plated - Emergency	11451	1/2" Pipe Thread
035145	Plated - Universal	11450	1/2" Pipe Thread
035146	Plated - 37˚ Service	11444	3/8" Pipe Thread
035147	Plated - 37˚ Emergency	11440	3/8" Pipe Thread

Rubber Gladhand Seals

Standard and Flat seal

"Guardian™" Seal *Seal Screen*

- Seals constructed of durable black Buna N compound
- "Guardian" seal with rubber flap and metal seal screen help protect air lines from debris

Part No.	Description
035005	Standard Seals
035007	Flat Seals
035140	Seal Screen
035141	Guardian™ Seal with Flap

"Guardian™" is a trade mark of Velvac, Inc.

Energy Suspension® Seals

- Could be the last seal you buy!
- Designed to fit all SAE approved gladhands
- Polyurethane seals improve resistance to oil and chemicals, increasing service life and decreasing down time
- Will not crack, dry out or tear like the conventional rubber seals
- Rated to -40˚F
- 50 Seals per bag

Part No.	Description
035165	Blue Service Seal
035164	Red Emergency Seal
035166	Black Universal Seal

Energy Suspension® is a registered trademark of Energy Suspension

Gladhand Seals with Built-in Screens

- Polyurethane seals with stainless steel screens built in
- Traps harmful contaminates before they can cause an air break system failure
- Keeps bugs out of the air lines
- Available in blue, black and red

Part No.	Description
035175	Blue Service Seal with screen
035176	Red Emergency Service Seal with screen
035177	Black Universal Service Seal with screen

Stow-A-Way™ Gladhand and Plug Holder

- Makes gladhand and electrical hook ups at a 45˚ angle for easy insertion and extraction
- Allows cable and air line storage with both feet firmly on the ground when properly placed
- Designed for heavier ABS cables
- Standard mounting holes make it easy to replace older designs
- Glass-filled nylon, non-corrosive construction

Part No.	Description
580042	Stow-A-Way Gladhand and Plug Holder

GladhandL™ Gladhand Grips

Part No. 035070

Part No. 035178

- 1/2" NPTF
- Sold in pairs in an attactive display package with information header
- Part No. 035070, polyurethane style features a soft grip with a machined steel core
- Part No. 035178, solid aluminum style features an anodized body with a diamond knurl

Part No.	Description
035070	One Red and One Blue GladhandL™ Grip with Hardware, Polyurethane
035178	One Red and One Blue Solid Aluminum Gladhand Grip, Hardware not needed

Gladhand Holder Kit

- Designed to mount on all Velvac pogo sticks
- Holds and seals gladhands when tractor is disconnected from trailer
- Durable zinc-plated steel construction
- Single gladhand holder can be mounted directly to cab using 5/16" bolt holes
- Kit includes two gladhand holders and mounting hardware

Part No.	Description
581006	Gladhand Holder Kit
580009	Gladhand Holder Only

Dummy Coupling

Part No. 035036

Part No. 035100

- Durable zinc-plated steel construction for corrosion resistance
- 6-1/2" Coupling Length
- 8-1/2" Chain Length, 18" Cable

Part No.	Description
035036	Vented Dummy Coupling
035037	Non-Vented Dummy Coupling
035100	Dummy Shut-off gladhand

HELPFUL HINT:
Improve leverage and reduce air hose kinks by using one of the two styles of gladhand grips

Glad-Lock™

- Rugged polypropylene gladhand lock helps prevent unwanted connections to tractors and trailers
- Universal design for use on many types of aluminum or iron gladhands
- Two keys furnished with each lock

Part No.	Description
035150	Glad-Lock

GladhandL™, Glad-Lock™ and Stow-A-Way™ are trademarks of Velvac, Inc.

Line Identification Tags

- 22 gauge aluminum construction with bright red enamel lettering
- 7/8" diameter hole

Part No.	Description
035025	Emergency Tag
035026	Service Tag

AIR

Air Brake Hose

Part No.	Hose I.D.	Hose O.D.	Coil Length
022011	3/8"	3/4"	50'
022011-7	3/8"	3/4"	250'
022047	1/2"	7/8"	50'
022047-7	1/2"	7/8"	250'

See page 111 & 112 for applicable reusable fittings

- Manufactured to a minimum burst pressure of 870 psi
- Conforms to SAE J1402 and DOT -106 standards
- Performs within an operating temperature range of -40˚ to +200˚F

Air Brake Hose Assemblies

- Brake hose assemblies meet SAEJ1402 requirements
- Fittings are permanently swaged

(L) Length Inches	3/8" I.D. Hose 1/4" Ends One End Fixed One End Swivel	3/8" I.D. Hose 3/8" Ends One End Fixed One End Swivel	3/8" I.D. Hose 3/8" Ends Both Ends Swivel	1/2" I.D. Hose 3/8" Ends One End Fixed One End Swivel	1/2" I.D. Hose 3/8" Ends Both Ends Swivel	1/2" I.D. Hose 1/2" & 3/8" Ends One End Fixed-1/2" One End Swivel-3/8"
9	**147009**	—	—	—	—	—
12	**147012**	—	—	**148012**	—	—
16	**147016**	—	—	**148016**	—	—
18	**147018**	**146018**	**146518**	**148018**	**148518**	**149018**
20	**147020**	**146020**	**146520**	**148020**	**148520**	**149020**
22	**147022**	**146022**	**146522**	**148022**	**148522**	—
24	**147024**	**146024**	**146524**	**148024**	**148524**	**149024**
26	**147026**	**146026**	**146526**	**148026**	**148526**	**149026**
28	**147028**	**146028**	**146528**	**148028**	**148528**	**149028**
30	**147030**	**146030**	**146530**	**148030**	**148530**	**149030**
32	**147032**	**146032**	**146532**	**148032**	**148532**	**149032**
34	**147034**	**146034**	**146534**	**148034**	**148534**	**149034**
36	**147036**	**146036**	**146536**	**148036**	**148536**	**149036**
38	**147038**	**146038**	**146538**	**148038**	**148538**	—
40	**147040**	**146040**	**146540**	**148040**	**148540**	—
42	**147042**	**146042**	**146542**	**148042**	**148542**	**149042**
44	**147044**	**146044**	**146544**	**148044**	**148544**	—
46	**147046**	**146046**	**146546**	**148046**	**148546**	**149046**
48	**147048**	**146048**	**146548**	**148048**	**148548**	**149048**
54	**147054**	**146054**	**146554**	**148054**	**148554**	—
60	**147060**	**146060**	**146560**	**148060**	**148560**	**149060**
72	**147072**	**146072**	**146572**	**148072**	**148572**	**149072**
84	—	**146084**	**146584**	**148084**	**148584**	—
96	—	—	**146596**	**148096**	**148596**	—

See page 111 for replacement swivel body adapters

Slider Air Hose Assemblies with Spring Guard

Part No.	Length	Tube O.D	Tube I.D.
149119	72"	3/8"	3/8"
149120	96"	3/8"	3/8"
149121	108"	3/8"	3/8"
149122	102'	3/8"	3/8"

Part No.	Length	Tube O.D	Tube I.D.
149123	120"	3/8"	3/8"
149124	102"	1/2"	3/8"
149125	108"	1/2"	3/8"

Air Compressor Discharge Hose

- Stainless steel braided outer jacket
- Extruded inner Teflon® tube prevents carbon buildup
- Withstands extreme temperatures of -100˚ to + 450˚F
- Hose and reusable fittings can be assembled to produce air compressor discharge hose assemblies

Part No.	I.D.	O.D.	Coil Length	Recommended Working Pressure (psi)	Minimum Bursting Pressure (psi)	Minimum Band Radius
142113	1/2"	5/8"	25'	1500	8500	6-1/2"
142113-7	1/2"	5/8"	100'	1500	8500	6-1/2"
142114	5/8"	3/4"	25'	1200	6000	7-3/4"

See page 113 for applicable reusable fittings

Air Compressor Discharge Hose Assemblies

- 5/8" straight tube x 5/8" compression fitting
- Hose measures 5/8" O.D., 1/2" I.D.

Part No.	Description
142118	18" Length
142124	24" Length
142130	30" Length
142136	36" Length
142148	48" Length

- 3/4" straight tube both ends
- Hose measures 3/4" O.D., 5/8" I.D.

Part No.	Description
142436	36" Length

- 5/8" straight tube both ends
- Hose measures 5/8" O.D., 1/2" I.D.

Part No.	Description
142324	24" Length
142336	36" Length

- Female swivel both ends
- Hose measures 5/8" O.D., 1/2" I.D.

Part No.	Description
142518	18" Length
142524	24" Length
142536	36" Length
142552	52" Length
142554	54" Length
142572	72" Length
142584	84" Length

- 5/8" compression fitting both ends
- Hose measures 5/8" O.D. 1/2" I.D.

Part No.	Description
142618	18" Length
142624	24" Length

Air Brake Hose Repair Fitting

- Kit for easy repair of 3/8" rubber air brake hose
- One package contains two fittings and one hex installation tool, all in a clamshell for retail display
- One Package will repair two 3/8" rubber air brake hoses
- Male fittings feature pre-applied sealant
- Meets DOT 106 SAE J1402 requirements

Part No.	Fitting Size	Sloan	Tectran	Tramec
500007	3/8"	431402	70-31402	31402
500008	1/2"	431403	70-31403	31403

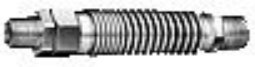
Teflon® is a registered trademark of E.I. DuPont do Nemours and Co.

Rubber Air Line Hose

- Tractor to trailer air line hose assembly
- Hose measures 3/8" O.D., 1/2" I.D.

Part No.	Length
140139	10'
140140	12'
140141	15'
140142	20'

Trailer Nose Box Hose Assembly



- Fits conventional and recessed trailer nose boxes
- Manufactured with 3/8" I.D., SAE Type A four spiral air brake hose
- One 1/2" swaged end fitting, one 1/2" reusable end fitting with spring
- 5-3/4" length
- Assembly meets SAE J1402 and FMVSS 106 requirements

Part No.	Description
140079	Trailer Nose Box Hose Assembly

NOTE: *Replacement fitting assembly with spring available-see Part No. 500019 on page 112*

Coiled Nylon Tubing Assembly Kits

- Assemblies include permanently swaged 1/2" - 14 NPTF end fittings with heavy gauge spring for extra support
- Each Standard kit contains one Emergency (**RED**) and one Service (**BLUE**) 1/2" O.D. nylon tubing assembly
- Assemblies meet SAE J844 and FMVSS 106 requirements

12' Assembly Kit

- 6" lead on both ends

Part No.	Description
022002	Standard Kit
022000	Kit with Two Extra 3/8" End Fittings
022004	Emergency Only
022009	Service Only

15' Assembly Kit with Long Lead

- One 40" lead, one 12" lead

Part No.	Description
022001	Standard Kit
022005	Emergency Only
022008	Service Only

15' and 20' Assembly Kit

- 12" lead on both ends

Part No.	Length	Description
022025	15'	Standard Kit
022026	15'	Emergency Only
022027	15'	Service Only
022030	20'	Standard Kit
022031	20'	Emergency Only
022032	20'	Service Only

Nylon Tubing

For air brake systems only - NOT for fuel line applications

- SAE Type A tubing is single wall extruded non-reinforced nylon
- SAE Type B tubing has seamless extruded nylon core with fiber reinforced protective nylon cover
- Can be used with either air brake or nylon tube fittings 150 psi maximum working pressure
- Withstands temperatures of -40º to +200º F
- Tubing meets SAE J844 and FMVSS 106 requirements

Part No Black	Blue	Green	Red	Yellow	Tube O.D.	SAE Type	Coil Length
020062	020132	020142	—	—	1/8"	A	100'
020062-7	—	—	—	—	1/8"	A	1000'
020065	—	—	—	—	5/32"	A	100'
020066	—	—	—	—	3/16"	A	100'
020064	020134	020144	020154	020164	1/4"	A	100'
020064-6	020134-6	020144-6	020154-6	020164-6	1/4"	A	1000'
020052*	—	—	—	—	5/16"	A	100'
020053	020136	020146	020156	020166	3/8"	B	100'
020053-7	020136-7	020146-7	020156-7	020166-7	3/8"	B	500'
020055	020138	—	020158	020168	1/2"	B	100'
020055-7	020138-7	—	020158-7	020168-7	1/2"	B	500'
020057	—	020157	—	—	5/8"	B	100'
020057-7	—	—	—	—	5/8"	B	250'
020059	—	—	—	—	3/4"	B	100'
020059-7	—	—	—	—	3/4"	B	250'

See pages 107 - 111 for applicable fittings

** Does not meet DOT or SAE specifications*

Fifth Wheel Slider Coil

- Continuously returns to its original shape
- Flexes from 10" to 54"
- Includes (2) 1/4" tube 1/4" MPT fittings
- Temp range from -40˚ to 208˚F
- Max. pressure rating of 150 psi
- Meets SAE J844 requirements

Part No.	Description
022028	Fifth Wheel Slider Coil

Cab Blower Kit

Part #149001

- Designed for truck cab or low pressure shop use
- Air hose rated at 200 psi max recommended operating pressure
- Kit includes hose, economy air nozzle, tire inflator and gladhand

Part No.	Description
149001	Cab Blower Kit-Rubber
149002	Air Blow Gun Assembly

Tube Cutter

Part No.	Description
090028	Nylon Tube Cutter

Dash Control Valves (PP-1, PP-2, PP-3, PP-7 and PP-8 Styles)

*Part No. 034015 (as shown; top portion **only** is different)*

- PP-1 Style
- Automatic pressure release at 40 psi
- 1/8" NPT supply port
- Knob and mounting nut sold separately (see page 44)

Part No.	Delivery Ports	Replaces
034013	(2) 1/8" NPT	*Bendix 275175, 276566, 276567 & Midland KN20021*
034015*	(2) 1/8" NPT	*Bendix 279786, 281587*
034014	(2) 1/4" NPT	*Bendix 287417, 287600*

*Remote controlled - 1/4" - 20 female thread for knob or cable

- *Direct replacement for Bendix 287238 & Midland KN20035*
- PP-8 style
- Automatic pressure release at 20 psi
- 1/8" NPT supply, delivery (2) and exhaust ports

Part No.	Description
034019	Dash Control Valve

- *Direct replacement for Bendix 275250, 276462*
- PP-2 Style
- Automatic pressure release at 40 psi
- 1/8" NPT supply port
- (2) 1/8" NPT delivery ports
- 1/8" NPT brake valve port
- Knob and mounting nut sold separately (see page 44)

Part No.	Description
034016	Pressure Balanced Dash Control Valve

*Part No. 034080 (as shown; top portion **only** is different)*

- PP-7 style
- Automatic pressure release at 40 psi
- Non-override at 25 psi
- 1/8" NPT supply and control ports
- 1/4" NPT delivery port
- 1/4" threaded exhaust port on Part No. 034079
- Knob and mounting nut sold separately (see page 44)

Part No.	Shaft Diameter	Replaces
034051	3/8"	*Bendix 288239, 288721 & Midland KN20025*
034079	5/16"	*Bendix 106113, 288241*
034080*	1/2"	*Bendix 288242*

*Remote controlled - 1/4" - 20 female thread for knob or cable

Part No. 034017 *Part No. 034018*

- PP-3 Style
- Tripper exhausts at 30 psi and charges above 50 psi
- Plunger trips at 40 psi and charges manually
- 1/8" NPT supply port
- 1/4" NPT delivery port
- 1/4" NPT exhaust port
- Knob and mounting nut sold separately (see page 44)

Part No.	Description	Replaces
034017	Automatic Tripper Dash Control Valve	*Bendix 288746*
034018*	Automatic Tripper Dash Control Valve	*Bendix 279787*

*Remote controlled - 1/4" - 20 female thread for knob or cable

Push-Pull Dash Control Valve

- *Direct replacement for Midland KN20030, KN20031*
- Automatic pressure release at 25-35 psi
- All ports 1/4" NPT
- 1/4" - 28 thread size

Part No.	Description
034055	Dash Control Valve

Pressure Reducing Valve (RV-1 Style)

- *Direct replacement for Bendix 283590*
- Used where a constant set pressure lower than supply pressure is required
- Adjustable-factory preset at 70 psi
- 1/4" NPT supply and delivery ports

Part No.	Description
034085	Pressure Reducing Valve

Knob and Pin Kits

Part No. 034049

Part No. 034054

Part No. 034050

Part No. 034053

Part No. 034052

Part No.	Description	Replaces
034049	Trailer Air Supply Knob and Pin Kit for PP-7 Style Dash Control Valve	*Bendix 290655 & Midland KN20900*
034050	Parking Brake Knob and Pin Kit for PP-1 Style Dash Control Valves	*Bendix 248433 & Midland KN20903*
034052	Plain Black Knob and Pin	*Bendix 241866*
034053	Pull to Park/Push to Release Parking Brake Knob and Pin Kit for PP-1, PP-2 and PP-3 Style Dash Control Valve	*Bendix 240302*
034054	Dash Control Valve Mounting Nut	*Bendix 239357*

NOTE: *All knob kits include roll pin to secure to valve*

Tractor Protection Valve (TP-3 Style)

- *Direct replacement for Bendix 279000 & Midland KN34060*
- 1/4" NPT tractor emergency port
- 3/8" NPT tractor service port
- 1/2" NPT trailer emergency and trailer service ports

Part No.	Description
034068	Tractor Protection Valve

NOTE: *Always use this valve in conjunction with a PP-1, PP-3 or PP-7 style dash control valve (see page 43)*

Tractor Protection Valve (TP-5 Style)

- *Direct replacement for Bendix 288605*
- Formerly VM-2 style control valve manifold
- 3/8" NPT service and trailer/ emergency supply ports (rear)
- 1/4" NPT stop light switch port
- 3/8" NPT trailer control port
- 1/2" NPT trailer service and trailer emergency supply ports

Part No.	Description
034082	Tractor Protection Valve

Dash Control Valve (MV-3 Style)

- *Direct replacement for Bendix 065157, 800516*
- Combination PP-1 and PP-7 valve
- 1/4" diameter horizontal mounting holes at 4-7/32" O.C.
- 1/4" diameter vertical mounting at 3" O.C. mounting holes

Part No.	Description
034081	Dash Control Valve

Relay Valves (R-6 Style)

- 1/4" NPT service port
- (4) 3/8" NPT delivery ports

Part No.	Supply Port(s)	Replaces
034020	(1) 1/2" NPT	*Bendix 279180, 280375*
034021	(1) 3/4" NPT (in mounting flange) (1) 3/8" NPT	*Bendix 279952*

Modulating Relay Valve (R-7 Style)

- *Direct replacement for Bendix 103081, 283932*
- 3/8" NPT supply and delivery (2) ports
- 1/4" NPT control and balance ports
- Spring brake release pressure of 95 psi

Part No.	Description
034023	Modulating Relay Valve

Relay Valve (R-8 Style)

- *Direct replacement for Bendix 286370, 286371*
- 1/4" NPT service port
- (2) 3/4" NPT supply ports
- (2) 1/2" NPT, (1) 1/4" NPT delivery ports
- 1/8" NPT balance port located under exhaust cover
- Cracking pressure 3 psi

Part No.	Description
034024	Relay Valve

Double Check Valve (DC-4 Style)

- *Direct replacement for Bendix 278614 & Midland KN25060*
- All ports 3/8" NPT
- May be mounted in any position

Part No.	Description
034062	Double Check Valve

Relay Valves (R-12 and R-14 Styles)

R-12 Style

R-14 Style 1/2" NPT

R-14 1/8" NPT balance port located under exhaust cover

Part No.	Style	Supply Port(s)	Delivery Ports	Replaces
034025	R-12	1/2" NPT	Vert.-(4) 1/2" NPT	*Bendix 102166, 102626*
034026	R-12	(2) 3/4" NPT	Horiz -(2) 1/2" NPT	*Bendix 103009*
034027	R-14	(2) 3/4" NPT	Horiz -(2) 1/2" NPT	*Bendix 103010*
034028	R-14	1/2" NPT	Vert.-(4) 1/2" NPT	*Bendix 103028*

Relay Valve

- *Direct replacement for Midland KN28060*
- 3/8" NPT control port
- (2) 1/2" NPT supply (reservoir) ports
- Crack pressure 4.6 psi
- (2) 3/8" delivery ports

Part No.	Description
034059	Relay Valve

Relay Valves (RG-2 Style)

- Fast, low cracking pressure - 5 psi
- 1/4" NPT control port

Part No.	Reservoir Ports	Delivery Ports	Replaces
034056	(2) 3/8"	(2) 3/8"	*Midland KN28500*
034057	(1) 3/8", (1) 1/2"	(2) 3/8"	*Midland KN28510*
034058	(2) 1/2"	(2) 1/2"	*Midland KN28520*

Relay Emergency Valve (RE-6 Style)

- *Direct replacement for Bendix 281865*
- 1/4" NPT service and emergency ports
- (1) 3/4" NPT, (1) 3/8" NPT supply ports
- (2) 3/8" NPT, (2) 1/4" NPT delivery ports

Part No.	Description
034029	Relay Emergency

Relay Emergency Valves

Part No. 034066

- 1/4" NPT delivery and service control ports
- 1/2" NPT supply port

Part No. 034067

- 1/4" NPT service and emergency inlets
- (4) 3/8" NPT delivery ports
- 3/4" NPT reservoir
- Crack pressure 3 psi

Part No. 034069 (w/ratio feature)

- (4) 3/8" NPT delivery ports
- 1/4" NPT emergency & service control ports
- 3/4" NPT reservoir port

Part No.	Description	Replaces
034066	Relay Emergency Valve	*Sealco A-1000*
034067	Relay Emergency Valve	*Midland KN30400 & Wagner A99036*
034069	Relay Emergency Valve	*Sealco 110200*

Multi-Function Trailer (RT-4 Style)

- *Direct replacement for Midland* KN26000
- 3/8" NPT trailer supply and control ports
- 1/2" NPT and 3/8" NPT reservoir ports
- (4) 3/8" NPT delivery ports
- PPV closing pressure at 55 psi

Part No.	Description
034063	Multi-Function Trailer Valve

AIR

Air Governors (D-2 Style)

- Factory preset opening and closing pressures of 100 to 120 psi
- (6) 1/8" NPT ports and two mounting holes
- Mounting gasket and (4) 1/8" socket head pipe plugs included
- High temperature governor designed with high temperature withstanding O-rings
- Individually boxed

Part No.	Description	Replaces
032131	Air Governor	*Bendix 275491 & Midland KN18530*
034083	High Temperature Air Governor	*Bendix 284358 & Midland* KN18534

Foot Valves (E-3, E-6 and E-7 Styles)

- *Direct replacement for Bendix 277863 & Midland KN22100*
- E-3 Style
- 1/2" NPT supply and delivery ports
- (2) 1/4" NPT auxiliary supply ports

Part No.	Description
034038	Single Circuit Brake Valve

- *Direct replacement for Bendix 286171 & Midland KN22140 and KN22150*
- E-6 Style
- 3/8" NPT supply and delivery ports

Part No.	Description
034039	Dual Circuit Brake Valve

Part No. 034040

Part No. 034077

- E-7 Style
- Dual circuit valves
- 1/2" exhaust port with diaphragm
- Three mounting holes-firewall mounted
- O-rings included

Part No.	Side Ports	Rear Ports	Application	Replaces
034040	(2) 1/4" Supply	No Threads	Ford	*Bendix 284760*
034077	(4) 1/4" Supply (4) 1/4" Delivery (Threaded)	1/8" Supply (2) 1/2" Supply (2) 1/2" Delivery	Navistar	*Bendix 288383*

Spring Brake Valve (SR-1 Style)

- *Direct replacement for Bendix 286364*
- 1/4" NPT reservoir, control, supply and delivery ports
- 55 psi reservoir trip pressure
- Bracket mounted

Part No.	Description
034030	Spring Brake Valve

Trailer Spring Brake Valves (SR-2 and SR-4 Styles)

Part No. 034031

Part No. 034032

- SR-2 style valves
- 1/4" NPT service reservoir (2) and trailer supply ports
- (4) 3/8" NPT delivery ports
- 1/4" NPT trailer service port on Part No. 034031

Reservoir Part No.	Port	Replaces
034031	1/2" MPT	*Bendix 103061*
034032*	3/4"" MPT	*Bendix 287376*

*Does NOT have trailer service port for anti-compound

- SR-4 style valves
- 1/4" NPT reservoir charging (2), trailer supply and trailer service ports
- (4) 3/8" NPT delivery ports

Reservoir Part No.	Port	Replaces
034033	3/4" MPT	*Bendix 101112*
034034	1/2" MPT	*Bendix 101622*

Trailer Spring Brake Valve (SR-5 Style)

- *Direct replacement for Bendix* 065437
- 3/4" MPT reservoir mounting port
- 1/4" NPT service/spring brake reservoir, service, trailer supply and trailer service ports
- (4) 3/8" NPT delivery ports
- Anti-compounding

Part No.	Description
034035	Trailer Spring Brake Valve

In-Line Quick Release Valves

Part No. 032019

Part No. 032020

- Speeds up release of trailer service brakes when installed on service side gladhand
- Speeds up application of trailer parking brakes when installed on emergency side gladhand
- Suitable for use on double or triple trailers
- Durable zinc die cast bodies
- Flow Rate: Forward - 9.0 SCFM at 2 psi; Exhaust - 8.0 SCFM at 2 psi
- 1/2" - 14 MPT with Vibraseal thread sealer one end, 1/2" - 14 FPT other end.
- 1-1/2" diameter x 3-1/2" long

Part No.	Description
032019	Mounts Between Tractor Protection Valve and Air Lines
032020	Mounts at tractor Gladhand

Quick Release Valves (QR-1 Style)

- 3/8" NPT exhaust port
- (2) 11/32" mounting holes at 1-1/2" on center
- Cracking pressure of 1 psi

Part No.	Delivery Ports	Supply Ports	Replaces
032015	3/8" NPT	3/8" NPT	*Bendix 229859, 288251 & Midland KN32005*
032018	3/8" NPT	1/2" NPT	*Bendix 229860 & Midland KN32011*
034078	1/4" NPT	3/8" NPT	*Bendix 229813*

Quick Release/Double Check Valve (QR-1C Style)

- *Direct replacement for Bendix 289714 & Midland KN32041*
- 1/4" NPT supply and balance ports
- (2) 3/8" NPT delivery ports
- (2) 11/32" diameter mounting holes at 1-1/2" on center
- Supply and delivery differential is 1 psi max

Part No.	Description
034012	Quick Release Valve

Limiting and Quick Release Valves (LQ-2 and LQ-4 Styles)

- *Direct replacement for Bendix 229505*
- LQ-2 Style
- Limits front axle service brake application by 50% and serves as a quick release valve for that axle - *commonly found on pre-121 (pre-1985) vehicles*
- 3/8" NPT supply, delivery and exhaust ports
- 1/4" NPT control port
- 19/32" diameter mounting holes at 1-1/2" on center

Part No.	Description
034084	Limiting and Quick Release Valve

- *Direct replacement for Bendix 289144*
- LQ-4 Style
- For limiting front axle pressure
- 3/8" NPT supply and delivery ports
- (2) 19/32" diameter mounting holes at 1-1/2" on center
- Nominal hold off pressure of 4 psi
- Nominal equalizing pressure of 60 psi

Part No.	Description
034036	Limiting and Quick Release Valve

Air Tractor Control Kits

- Kits add hand and foot control to trucks with pre-FMVSS 121 air brakes hauling an air brake trailer (for trucks with FMVSS 121 air brakes, consult the truck manufacturer)
- Hose assembly jumper lines and support springs included with kit (kit No. 131012 only)
- Hand control valve included (except for Part No. 131016). This normally closed valve has 1/4" FPT inlet/outlet/exhaust ports and an 1/8" FPT pressure gauge port (180 psi maximum supply pressure) - hand control valve also sold separately
- **NOT FOR ABS APPLICATIONS**

Part No.	Description
131012	Kit for Tractor Installations
131014	Kit for Dump Truck Installations
131016	Kit for Dump Truck Installations without Hand Valve
032051	Hand Control Valve

AIR ACCESSORY VALVES

Universal Fan Clutch Drive Solenoid Kit

Five year guarantee against failure under normal operating conditions!

Nominal Voltages: 12 VDC
Working Voltage: 11 -16 VDC
Maximum Operating Pressure: 150 psi
Exposure Temperature: 200 º F (max)
Mounting Hole: 3/8"
Ports: (3) 1/8"-27 FPT

- Universal kit replaces existing solenoids found on Kysor, Bendix and Horton fan clutches
- Kit includes valve, wire harness with Weather-Pack sealed connectors, exhaust shield, in-line filter and butt connectors

Part No.	Description
032192	Universal Solenoid Kit
032194*	Replacement Solenoid
032190	Replacement In-Line Filter
032191	Replacement 1/8" NPT Exhaust Vent

*Valve may also be used for shutter stat solenoid applications. Replaces Navistar numbers 450284C91 and 1692761C91 for this use

Three-Way Solenoid

- Provides on/off exhaust function
- Inlet port normally closed- *for intermittent use only*
- (2) 1/4" FPT ports
- 12 VDC
- 100 - 120 psi operating pressure
- 2-9/32" diameter mounting holes on 2-1/2" centers

Part No.	Description
320051	Three-Way Solenoid

***NOTE**: Always use in conjunction with a momentary contact switch (see Part No. 090202 on page 80)*

Air Solenoid Valve

- *Direct replacement for Neway 90054075 (normally open)*
- 12 VDC, 10 watts
- Intermittent use only
- 100psi maximum operating pressure
- 1/4" threads

Part No.	Description
034075	Air Solenoid Valve

Tag Axle Control Solenoid Valve

- *Direct replacement for Midland/ Haldex & Neway 90554662*
- Operates auxiliary lift axle
- 3/8" NPT ports
- 12 VDC
- 72" lead
- 150 psi maximum operating pressure

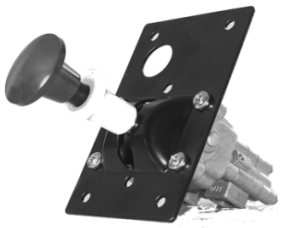
Part No.	Description
034094	Solenoid Valve Assembly

Power Take-off and Dump Pump Control Valve Kit

- *Replaces Chelsea 328388-79X*
- Kit includes combo control valve with 1/4" built-in push-to-connect fittings, in-line fuse holder with 9 amp fuse, cable, pressure protection valve 1/4" nylon tubing (50') and fittings-control valve assembly also sold separately

Part No.	Description
032144	PTO and Dump Pump Control Valve Kit
032142	Combo Control Valve (Feathering Valve)
034073	PTO Cable
032086	Pressure Protection Valve

Power Take-Off Four-Way Control Valve



- *Replaces Chelsea 328865X*
- Panel-mounted, three position valve
- 1/8" - 27 NPTF
- 150 psi maximum operating pressure
- Operating temperature range from -20º to +200º F

Part No.	Description
032145	PTO Four-Way Control Valve Assembly

Power Take-Off Air Shift Kit

- Power take-off kit controls add-on air-controlled accessories
- Kit includes control valve, indicator light, 1/4" nylon tubing (50) and fittings, cable, bracket and pressure protection valve. Control valve assembly, indicator light and cable also sold separately

Part No.	Description
034070	Power Take-Off Air Shift Kit
034071	Air shift Valve Assembly
034072	Indicator Light
034073	PTO Cable
032086	Pressure Protection Valve

Power Take-Off Combo Control Valve with Shift Tower

- Combo valve controls PTO and dump pump operations
- 1/4" brass push-to-connect fittings included on valve assembly
- Shift tower measures 4-5/8" x 3-5/8" x 8" H overall with 2" access hole and mounting holes 4-1/4" on center

Part No.	Description	Replaces
032143	PTO Combo Valve with Shift Tower	-----
032142	Combo Control Valve (Feathering Valve)	*Chelsea 329358X*
032146	Control Valve Shift Tower	*Chelsea 329219X*

Air and Air-Electric Three-Way Toggle and Flipper Valves

Part No.	Photo	Description	Toggle Style	Lever Position	Primary Vehicle Application*
032225	A	Air-Electric Toggle Valve	Paddle	—	Kenworth, Volvo
032227	B	Air-Electric Toggle Valve	Blade	—	Mack
032228	C	Air-Electric Toggle Valve	Bat	—	Peterbilt
032229	D	Air Toggle Valve	Paddle	—	Kenworth, Volvo
032231	E	Air Toggle Valve	Blade	—	Mack
032232	F	Air-Electric Flipper Valve	—	Right Off	Freightliner
032234	F	Air-Electric Flipper Valve	—	Right Off	Navistar
032235	F	Air-Electric Flipper Valve	—	Right On	Navistar
032233	G	Air Flipper Valve	—	Right Off	Freightliner
032236	G	Air Flipper Valve	—	Right Off	Navistar

**These are only primary listings-valves are universal and suitable for a variety of applications*

- Push-connect fittings mate easily with 1/4" nylon tubing for easy installation
- 150 psi maximum operating pressure
- ON-OFF Faceplate Part No. 032039 fits air-electric and flipper valves. Part Nos. 032232, 032233, 032234 and '032236 and installs using 10-'24 x 1/4" screw

Air-Electric Valves Technical Information

Switch Off Position: No air flow, electrical contacts open
Switch On Position: Air flows through valve, electrical contacts closed
Amperage: 5 amp resistive current load at 12 VDC
Terminal Size: 1/4" blade Terminal Size
Pressure Switch: Open below 10 psi, closed above 35 psi

Transmission Selectors

Part No. 032400

Part No. 032401

Part No. 032402

Part No.	Description
032400	Trans Selector A4487
032401	Trans Selector A4490
032402	Trans Selector A4491

Transmission Range

Part No. 032403 *Part No. 032404* *Part. No. 032405* *Part No. 032406*

Part No.	Description
032403	Range Value A-6909
032404	Range Value A-6913
032405	Range Value A-6915
032406	Range Value A-6918

Universal Air Accessory Dash Valves

- Two position, three-way air valves
- Include DOT compliant (FMVSS 106) push-to-connect fittings for 1/4" tubing
- Built-in standard four pin electrical connector for backlit function
- Additional rear port used to easily jumper air lines between valves
- Fit standard 22 mm x 44 mm openings, easily replacing valves found on many current model trucks

Operating Temperature: -10º to +160º F
Rated Pressure: 150 psi maximum
Rated Current Load: 1 amp at 14 VDC (max.)
Electric Connector: Valve connector mates with Metri-Pack 150 Series connector Part No. 12045813 with female terminals (for reference only-not available from Velvac and not included)

Part No.	Description
032247	Inter-Axle Differential Lock Dash Valve
032248	Fifth Wheel Slide Dash Valve
032249	Air Suspension Dump Dash Valve
032250	Power Take Off Dash Valve
032253	Universal Dash Valve
032022	Inter-Axle Differential Lock Dash Valve
032023	Differential Lock Dash Valve

Universal Three-Way Toggle Valve

- 1/8" NPT supply and delivery (2) ports
- Includes chrome-plated flip handle
- Faceplate sold separately-install using a 10-24 x 1/4" screw

Part No.	Description
032037	Universal Three-Way Toggle Valve
032039	Faceplate-On/Off

On/Off Air Control Toggle Valve

- *Replaces Mack 20-QE39311*
- 1/8" NPT inlet and outlet ports
- Includes mounting washer and nut

Part No.	Description
032138	On/Off Air Control Valve

Height Control Valves -
Standard Leveling Valve, Cab Leveling Valve and a Rapid Dump Feature valve

The Shear-Seal® Advantage

In the past industry expectations for commercial vehicle air suspension height control valves was limited. Designs were based on seals that wore rapidly, requiring frequent replacement. As the seals failed, height control performance deteriorated and air consumption increased. Valve replacement and downtime costs were rising with trucking demand.

Standard

Cab

Dump

The Shear-Seal® Solution:

- Provides breakthrough improvements in durability and performance
- Over 40 years of heavy duty demanding industry applications such as: steel and paper mills, oil exploration and processing and defense
- Zero lead technology reduces downtime and costly air loss

The Shear-Seal® Principle

- Based on the sliding of two precisely machined metal sealing surfaces across each other creating a zero-leak* seal
- Media passes through the center of the seals rather than across the seal surface preventing contamination from entering the seal areas
- As the valve shifts, the wiping action of the polished metal seals pushes away debris
- Precision engineering and manufacturing combine for unmatched performance and reliability
- These valves are actual OEM valves used in production

Part No.	Description	Ports	Replaces	Used with Vehicles
034101	Cab Valve	1/4" NPT	WABCO S464 007 004-0 Barksdale KD2355	International cab, Peterbilt cab
034111	Standard Chassis Valve	1/4" NPT	WABCO S464 002 443-0 Barksdale KD2356 Midland KN 27000	International chassis
034112	Standard Chassis Valve	1/4" NPT	Hadley/Neway 90054007, Barksdale KD2357	Kenworth chassis
034113	Standard Chassis Valve	1/4" NPT	Delco King of the Road 12C-1 (KOR 5549705) & 12-6-2 (KOR 5549706), Barksdale KD2373	Volvo chassis
034114	Standard Chassis Valve	1/4" NPT	Hadley H00450CE Barksdale KD2375	Volvo/ Mack chassis
034122	Dump Valve	1/4" NPT	Hadley H00500RS Barksdale KD2358	International chassis
034123	Dump Valve	1/4" NPT	WABCO 464 008 115-0 Barksdale KD2359	Volvo chassis
034124	Dump Valve	1/4" NPT	International 2506169C91 Hadley HAD500NS, Barksdale KD2360	International chassis w/dump, Peterbilt chassis w/dump
034126	Dump Valve	1/4" NPT	Haldex PR 90554950 & 90554945, Barksdale KD2374	Kenworth chassis w/dump Volvo chassis

NOTE: *See photos on page 54*

*Zero-leak is less than 4CC per minute

Shear-Seal® is a registered trademark of Barksdale Control Products

Shear-Seal® Height Control Valve

Part No. 034122

Part No. 034123

Part No. 034124

Part No. 034112

Part No. 034101

Part No. 034126

Part No. 034113

Part No. 034114

Part No. 034111

Shear-Seal® Height Control Valve Linkage and Hardware

Adjustable Linkage

- Adjusts for 8-3/4" to 14-1/2"
- 1/4" diameter mounting bolts
- Zinc plated steel rods
- Elastomer ends

Adjustable Linkage

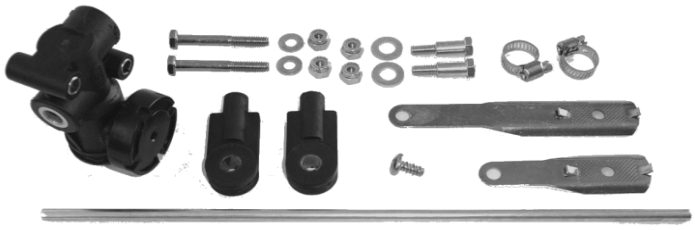
Part No. 034135

Part No. 034136

Part No. 034134

Part No.	Description
034130	Adjustable Linkage - adjustment range 6.9-9.6 inches
034131	Adjustable Linkage - adjustment range 9.8-11.5 inches
034132	Adjustable Linkage - adjustment range 10.9-13.6 inches
034133	Adjustable Linkage - adjustment range 12.8-19.0 inches
034134	Linkage Hardware - 5/16-18 thread
034135	Linkage Hardware- 1/4-20 thread
034136	Linkage Hardware - 8mm course thread

Height Control Valves



Part No. 032139

Part No. 034065-Delayed Response**

Part No. 034064-Immediate Response

Part No. 032140

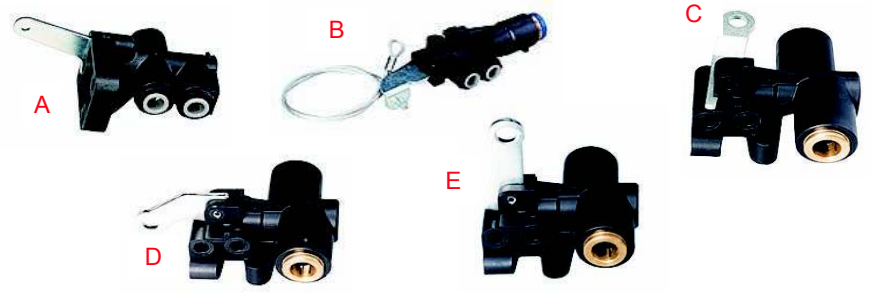
Part No. 032141-Immediate Response*

Part No.	Ports	Description	Replaces
032139	1/8" NPT	Includes Linkage and Brackets	*Hadley H600*
032140	1/4" NPT	Valve Only	*Midland/Haldex & Neway 90554241*
032141*	1/4" NPT	Includes Built-In Dump Valve	*Midland/Haldex & Neway 90554271*
034064	1/4" NPT	Includes Linkage Kit	*Midland KN27000*
034065**	1/8" NPT	Includes Fitting Package	*Neway 90054007*

* Normally open dump feature; needs air pressure to dump from air spring

**7-12 seconds prior to releasing air to air bags; also known as self-leveling

Air Horn Actuator Valves



- *Direct replacements* for air horn valves found on many trucks
- Replace similar valves from both Grover and Hadley
- Molded mounting bracket and push-connect fittings provide easy installation

Part No.	Photo	Description	Ports	Vehicle Application
032240	A	Single Outlet	(3) 1/4"	Kenworth
032241	A	Dual Outlet	(3) 1/4"	Kenworth
032242	B	Dual Outlet	(3) 1/4", (1) 3/8"	Freightliner
032243	B	Single Outlet	(3) 1/4", (1) 3/8"	Freightliner
032244	C	Medium-Duty	(2) 3/8"	Navistar
032245	D	Conventional Cab	(2) 3/8"	Navistar
032246	E	Cab over	(2) 3/8"	Navistar

Rapid Dump Air Suspension Valve

- *Replaces Humphrey 250A N/O valves*
- Pilot operated
- Dual delivery design allows for in-line plumbing of air spring lines and eliminates need for tee fittings
- (4) 1/8" FPT ports
- Mounts on either right or left frame rail using 1/4" mounting holes

Part No.	Description
032195	Rapid Dump Air Suspension Valve

Pressure Protection Valves

- Nominally closed
- Nominal closing pressure 65-75 psi
- (2) 1/4" FPT ports
- 150 psi maximum operating pressure

Part No.	Description
032086	Pressure Protection Valve

PR-4 Style

- *Direct replacement for Bendix 286500*
- 1/4" NPT supply and delivery ports
- 85 psi nominal closing pressure
- Non-adjustable

Part No.	Description
034037	Pressure Protection Valve

Three-Way Pilot Valve

- *Direct replacement for Neway 90054079*
- For Neway suspension systems
- 1/4" NPT supply/delivery/exhaust ports

Part No.	Description
034074	Three-Way Pilot Valve

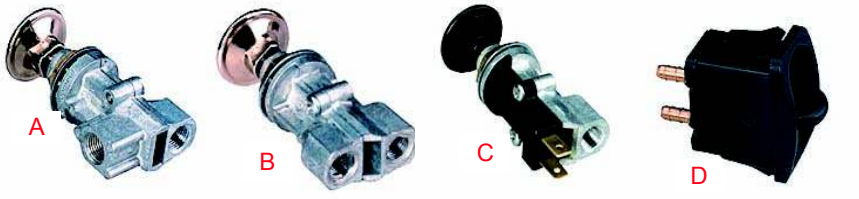
- Designed for convenient in-tank mounting on tanks with dual outlet ports
- All valves *except Part No. 032221* include Vibraseal sealant on mounting thread for easy installation

Part No.	Inlet Port (NPTM)	Outlet Ports (NPTF)	Nominal Opening Pressure (psi)	Nominal Closing Pressure (psi)	Primary Vehicle Application*
032216	3/8"	3/8"	55	45	Freightliner
032217	3/8"	3/8"	85	67	Ford
032218	1/2"	3/8"	55	45	Freightliner
032219	1/2"	3/8"	85	67	Freightliner
032220	1/2"	1/4"	65	55	Peterbilt
032221	1/2"	1/4"	100 (max)	70 (min)	Kenworth
032222	1/4" (Hex Nipple)	1/4"	100 (max)	70 (min)	Mack**

** These are only primary listings-valves are universal and suitable for a variety of applications*

*** Replaces Mack number 20QE2326A*

Height and Lumbar Control Seat Valves



- Valves control air ride truck seats and lumbar supports
- Available in push/pull and paddle type configurations
- Spring-loaded, three-way function
- Electro-pneumatic combination valve designed to operate air seats using an electric air compressor
- Designed to replace valves on seats by major manufacturers such as Bostrom, National and Sears

Part No.	Photo	Description	Ports	Primary Seat Application*
032110	A	End and Side Ported with Removable Chrome Knob	(2) 1/8" FPT	Various
032205	B	End Ported with Removable Chrome Knob	(2) 1/8" FPT	Various
032206	C	Electro-Pneumatic with Removable Black Knob and Two 1/4" Blade Terminals	(1) 1/8" FPT	Various
032201	D	Paddle Type	(2) 3/16" Barbs	Bostrom

**These are only primary listings-valves are universal and suitable for a variety of* applications

Air Pressure Gauge

- 1-1/2" diameter dial
- Accommodates a 1/8" FPT port
- Pressure range of 0 - 160 psi

Part No.	Description
035065	Air Pressure Gauge

Pressure Regulator Valve

- A compact, high quality in-line pressure regulator with gauge and bracket kit, rated to 125 psi with 1/4" NPT ports

Part No.	Description
320149	Pressure Regulator Valve

Low Air Pressure Warning Light

- 12 volt red light
- Uses #57, 1895 or 293 bulb
- Mounts through 3/4" hole
- Complete with low air face plates

Part No.	Description
036049	Low Air Pressure Warning Light Assembly
002063	Replacement Red Pilot Light
036045	Replacement Faceplate

***NOTE**: Use in conjunction with a low pressure switch part Nos. 0304041, 034042 or 175043*

Brake Light Switch (SL-4 Style)

- *Direct replacement for Bendix 228600*
- 1/4" NPT supply
- Actuates at 3-5 psi

Part No.	Description
036036	Stop Light Switch

Low Air Warning Buzzer

- 12 volt buzzer
- 9/32" diameter mounting holes

Part No.	Description
036043	Low Air Warning Buzzer

NOTE; Use in conjunction with a low pressure switch, Part No. 034041 or 034042

Pressure Regulator Valve

- *Direct replacement for Bendix 217380 & Midland KN31070*
- Non-exhaust type regulator
- 3/8" NPTF delivery and supply ports
- 10-125 psi adjustable pressure gauge

Part No.	Description
032060	Pressure Regulator Valve

Low Pressure Indicators (LP-3 Style)

- 1/4" NPT supply
- Automatic pressure release at 60 +/- 6 psi

Part No.	Description	Replaces
034041	Single Terminal	*Bendix 279416*
034042	Double Terminal	*Bendix 228750*

***NOTE:** Use in conjunction with either warning buzzer Part No. 036043 or warning light Part No. '036049*

AIR

Air Dryer Replacement Cartridges

Part No. 034046

Part No. 034047

Part No. 034048

- All include seal rings

Part No.	Description	Replaces
034046	Fits AD-SP Type Air Dryers	*Bendix 109994, Bosch 1-487-434-901 & WABCO 432-410-020-2, 432-420-220-2 (also fits System Saver 1200)*
034047	Fits AD-4 Air Dryers	*Bendix 103981, 104358*
034048	Fits AD-9 Air Dryers	*Bendix 107794, 107796*

AD-9 Air Dryer Rebuild Purge Kits

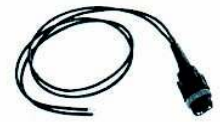
Part No. 034087

Part Nos. 034088, 034089

- Installation instructions and all necessary lubricants included
- 12 and 24 VDC heater/thermostat kits also sold separately and include heater/thermostat assembly, seal rings and mounting hardware

Part No.	Description	Replaces
034087	Purge Valve Kit w/ Purge Piston Assembly	*Bendix 5005037, 5004336, 5004337, 107798*
034088	Purge Assembly Kit - 12 Volt (includes Aluminum Purge Housing, Purge Valve Kit and 12 V Heater/Thermostat Kit	*Bendix 800405*
034089	Purge Assembly Kit -- 24 Volt (includes Aluminum Purge Housing, Purge Valve Kit and 24V Heater/Thermostat Kit	*Bendix 5004338*
034092	Heater/Thermostat Kit Only - 12 Volt	*Bendix 109578*
034093	Heater/Thermostat Kit Only - 24 Volt	*Bendix 109579*

Air Dryer Wiring Harness



- *Direct replacement for Bendix 109869, 109871, 298948*
- Fits both 12 and 24 volt AD-9, AD-SP, AD-IP and System Saver 1200 units
- 22" leads

Part No.	Description
034091	Air Dryer Wiring Harness

Safety Valves (ST-3 and ST-4 Styles)

Part No. 030075

Part No. 030074

- ST-3 Style
- Automatic Pressure release at 150 psi
- 1/4" NPT
- Adjustable valve preset to 125 psi by factory; adjustable from 41-149 psi

Part No.	Description	Replaces
030075	Safety Valve	*Bendix 284142 & Midland KN31200, KN31400*
030074	Adjustable Safety Valve	*Bendix 205105*

Part No. 034090

- ST-4 Style
- 1/4" NPT
- Automatic pressure release at 175 psi
- Low profile valve fits AD-9, AD-SP, AD-IP, and System Saver 1200 air dryers

Part No.	Description	Replaces
034090	Safety Valve	*Bendix 800350*

Automatic Reservoir Drain Valve (DV-2 Style)

- *Direct replacement for Bendix 281923 & Midland KN24000*
- All ports 3/8" NPT

Non-heated

Part No.	Description
034043	Automatic Reservoir Drain Valve

Single Check Valves

Part No. 034044

Part No. 320014

Part No. 320001

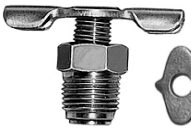
Part No. 034045

Part No. 320003

Part No.	Description	Replaces
034044	1/4" Threads	*Bendix 229603, 800375*
320014	3/8" Threads	*Bendix 227870, 800373 & Midland KN23010*
320001	1/2" Threads	*Bendix 227717, 227788, 227871, 800372 & Midland KN23000*
034045	1/2" Female Threads	*Bendix 800370*
320003	3/4" Threads	*Midland KN23040*

Air Tank Drain Cocks

Part No. 036003


Part No. 036019

Part No. 036021

- 1/4" MPT

Part No.	Description
036003	Lever Handle Drain Cock
036019	Back Seating Drain Cock
036021	Wing Handle Drain Cock

Drain Pull Valves

- Attached vinyl coated aircraft cable
- .075" diameter cable
- 1/4" MPT
- 120 psi maximum pressure

Part No.	Description
032135	Valve with 3' Cable
032058	Valve with 4' Cable
032082	Valve with 5' Cable
032160	Valve with 5' Cable Uncrimped on Free End-Includes One Extra Sleeve
032081	Valve Without Cable
032170	100' Bulk Cable
032083	Replacement 5' Cable and Sleeves
032185	Replacement Cable Sleeve

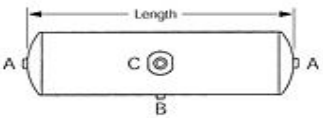
SLACK ADJUSTERS

Manual Slack Adjusters

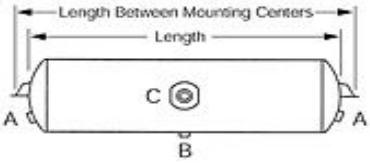
- Straight arm, standard duty slack adjusters with bronze bushings
- 22,000 in.-lbs. Rating in accordance with SAE Test J1461 Draft 4
- Five rivet design
- 26,000 in.-lbs. maximum torque rating

Part No.	Spline	Drilling	Replaces
035120	1.60"-37	6"	*Bendix 283411, Midland KN44041 & Euclid E1574HD*
035121	1.60"-37	5", 6", 7"	*Midland KN44042*
035122	1.50"-28	5", 6"	*Bendix 286965, Midland KN44051 & Euclid E2458*
035123	1.50"-28	5-1/2", 6-1/2"	*Bendix 288753, Midland KN44061 & Euclid E2459HD*
035124	1.50"-28	5", 6", 7"	*Bendix 288282, Midland KN44071 & Euclid E2458HD*
035125	1.50"-10	5", 6", 7"	*Bendix 278323, Midland KN47001 & Euclid E612HD*
035126	1.50"-10	5-1/2", 6-1/2"	*Bendix 278321, Midland KN47011 & Euclid E940HD*
035127	1.50"-10	5", 6"	*Bendix 278312, Midland KN47081 & Euclid E1063HD*
035128	1.25"-10	5", 6"	*Bendix 278303, Midland KN48001 & Euclid E939*
035129	1.25"-10	5", 6", 7"	*Bendix 278305 & Midland KN48002*
035130	1.25"-10	4-1/2", 5-1/2"	*Bendix 278302, Midland KN48031 & Euclid E4904*
035131	1.25"-10	4-1/2", 5-1/2" (*Right Hand Offset*)	*Bendix 278294, Midland KN49000 & Euclid E2762RH*
035132	1.25"-10	4-1/2", 5-1/2" (*Left Hand Offset*)	*Bendix 278295, Midland KN49010 & Euclid E2763LH*

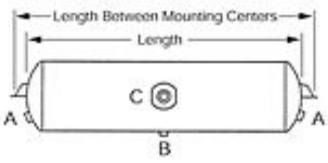
Air Tanks



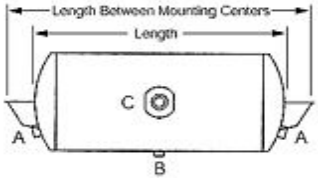
Type 1 - Bracket Mounted



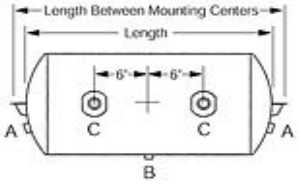
Type 2 - Flange Mounted



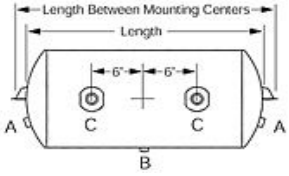
Type 3 - Flange Mounted



Type 4 - Flange Mounted



Type 5 - Flange Mounted



Type 6 - Flange Mounted

- All tanks feature dual main ports except Part No 035103
- All steel construction
- All tanks are water tested prior to shipping
- Dipped tanks are rust resistant and primer sealed
- Internally corrosion resistant
- Tanks meet SAE J10 requirements

Part No.	Tank Type	Diameter	Length	A	B	C	Cu. In. Capacity	Mounting Centers
035103*	1	8"	29-1/4"	1/2"	1/4"	3/4"	1425	—
035101	2	8"	29-1/4"	3/8"	1/4"	3/4"	1425	32"
035102	3	8"	29-1/4"	3/8"	1/4"	3/4"	1425	32"
035106	3	9-1/2"	22-1/2"	3/8"	1/4"	3/4"	1488	27-1/2"
035104	4	9-1/2"	22-1/2"	3/8"	1/4"	3/4"	1488	27-1/2"
035105	4	9-1/2"	22-1/2"	1/2"	1/4"	3/4"	1488	27-1/2"
035108	3	12"	27"	3/8"	1/4"	3/4"	2850	29-1/2"
035107**	5	12"	27"	3/8"	1/4"	3/4"	2850	29-1/2"
035109**	6	12"	27"	3/8"	1/4"	3/4"	2850	29-1/2"

** This tank can also be used for vacuum applications - see also mounting brackets Part No. 501051*

*** Dual main ports on same side of tank-ports are 12" apart on center*

Air Tank Check Valve Kit

- Provides a second dry air reservoir
- Kit includes 1425 cu. in. air tank, mounting brackets, one-way check valve, reducer bushing and 1/4" drain plug

Part No.	Description
131045	Air Tank Check Valve Kit

Air Tank Mounting Brackets

- For tanks up to 8-3/16" in diameter

Part No.	Description
501051	Air Tank Mounting Brackets

Air Brake Chambers

- *Direct replacements for all popular service brake chambers*
- Fully threaded shaft for maximum adjustability
- All include mounting hardware, clevis and cotter pin

Part No.	Diameter	Type	Working Stroke
030013	5.785"	12	1-3/4"
030015	6.5"	16	2-1/4"
030017	7"	20	2-1/4"
030019	7.5"	24	2-1/2"
030021	8.25"	30	2-1/2"
030024	9"	36	2-3/4"

Air Brake Diaphragms

- Gas and oil resistant
- Rubber/neoprene blend
- Fabric reinforced for extra strength and long life

Part No.	Diameter	Type
031021	6"	9
031023	5.5"	12
031025	6"	16
031027	6.5"	20
031031	7"	24
031033	8"	30
031035	9"	36

Anodized aluminum clear-coated bodies • Nitrile seals for long cycle life • High impact knobs
Balanced spool design • Operating temperature range from -40° F to + 180°F
•Stainless steel hardware • Normal operating pressure 100 psi

Four-Way Push/Pull Valves

Both faceplates included

- Aluminum shaft with stainless steel extension and delrin detent ring provides easy ID of valve position
- Threaded aluminum mounting boss for 1" dia. Through hole mounting (nuts included)
- (3) 9/32" dia. Body mounting holes
- (5) 1/4" -18 FPT ports
- Normal operating pressure 100 psi
- Includes two faceplates:
  Pull to Open/Push to Close
  Pull to Raise/Push to Lower

APPLICATIONS FOR VALVES

- Two position valve operates any double acting air cylinder
- Three position valve operates systems where full air or vacuum pressure must be isolated

Part No.	Description
320121	2-position valve
320122	3-pos, holding type valve
320125	Replacement knob, faceplates and nuts

Viper™ Four-Way Push/Pull

- One piece stainless steel shaft
- Can be mounted using (2) 3/16" dia. body mounting holes or through a 1/2" dia. through hole
- (3) 1/8"NPT ports, (2) 10-32 exhaust ports
- Includes faceplate

Part No.	Description
320124	"Viper" Four-Way Valve
320127	Replmt Knob and faceplate

Viper™ is a trademark of Velvac, Inc.

Four-Way Push/Pull Compact Design Valve

- The compact design fits into today's small dash board designs
- Pneumatic valve is designed to control the operations of a typical air cylinder
- 150 psi maximum air pressure
- 0.4 cv air flow
- Aluminum body and end caps stainless steel extension
- 40 micron filtration

Part No.	Description	Parker Ref
320011	4-way valve	410939002

Four-Way Rotary Handle Valve

- Three position valve
- (3) 1/4" - 18 FPT ports
- 1/4" NPT threaded exhaust ports
- (2) 1/4" dia body mounting holes at 1-15/16" on center
- Operating pressure to 150 psi
- Includes solid one-piece handle and two faceplates (Raise/Lower and Open/Close)

Part No.	Description
320123	Rotary Handle Valve
321034	Raise/Lower Faceplate
030092	Cone Filter 1/4"

Four-Way Electronic Solenoid Valve

- Operates any single acting or pressure double acting air cylinder
- Air-piloted assist
- Actuated with a std on/off switch
- (5) 1/4" -18 FPT port
- (3) 9/32" dia valve body mtg holes
- Normal oper. pressure 100psi
- Exhaust cone filters included

Part No.	Description
320131	4-way Solenoid
320132	Electrical Coil
320133	Solenoid Mounting Nut
030092	Cone Filter 1/4"
030084	Cone Filter- 1/8"

Four-Way Mini Electronic Solenoid Valve

- Compact design- 4" overall length
- Air-piloted assist
- 1/8" supply and delivery ports
- 10-32 exhaust ports
- 12VDC coil with low 2 watt draw
- Normal operation pressure 100 psi

Part No.	Description
320134	4-way Mini Solenoid
320135	Electrical Coil
030093	Cone Filter 10-32

Cone Filters

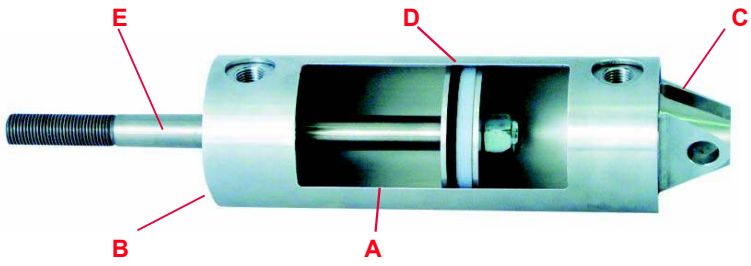
Part No.	Description
030093	10-32 Cone Filter
030084	1/8" Cone Filter
030092	1/4" Cone Filter
030094	3/8" Cone Filter

ENFORCER
AIR CYLINDER SERIES BY VELVAC

Backed by a 3 year warranty

Velvac's heavy-duty Enforcer™ series of air cylinders are built tough for long life and made from some of the strongest materials available today!

- Machined from 6061 series aluminum, 303 stainless steel, with Nitrile "O" rings and a UHMW polyethylene wear band, they are the ultimate air cylinder!
- Cycle tested into the millions! The solid construction means they will keep on working even in extreme conditions where other air cylinders fail!
- These cylinders are available in push/pull, solenoid operated and spring return versions that will slam the door on the competition!



General Information	Feature #	Feature/Benefit
Cylinder Construction	A	Aluminum cylinder tubing with a 16 RMS finish, lock ring construction secures end caps to tube
Front Cover	B	Solid aluminum with oilight bronze bushing, Delrin seal and 1/4" NPT port
Rear Cover	C	Solid aluminum with mounting hole for 1/2" clevis pin and 1/4" NPT port
Piston Cup	D	Solid aluminum with Nitrile "O" ring rated at -40º to 185º F and UHMW polyethylene wear band
Piston Rod	E	5/8" diameter 303 series stainless steel with 5/8" - 18 thread
Temp Rating		-40º to 185º F
Pressure Rating		10 psi minimum to 150 psi maximum Standard operating pressure 100 psi

2-1/2" Air Cylinder

Part No.	Cylinder Type	Stroke	Retracted Length	Extended Length	Thrust at 100 psi	Draw at 100 PSI
100204	Push/Pull	4"	9.89"	13.89"	491 lbs	460 lbs
100226	Spring Return	6"	13.75"	19.75"	251 lbs	460 lbs
100206	Push/Pull	6"	11.89"	17.89"	491 lbs	460 lbs
100208	Push/Pull	8"	13.89"	21.89"	491 lbs	460 lbs

3-1/2" Air Cylinders

100308	Push/Pull	8.68"	15.60"	24.28"	962 lbs	930 lbs
100310	Bullet Type	10"	16.92"	26.95"	962 lbs	930 lbs

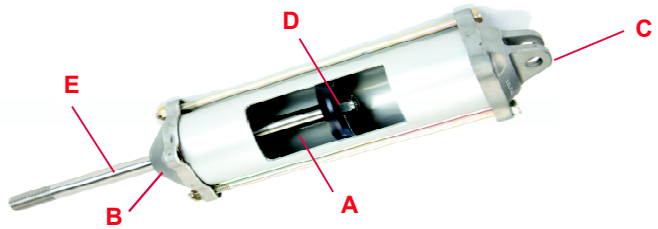
NOTE: *Air cylinders and tailgate kits are designed to operate the locking linkage on dump bodies and are* ***NOT*** *to be used as a means of mechanically holding the tailgate shut. Custom kits are available - contact Velvac for more information.*

Enforcer™ is a trademark of Velvac, Inc.

VELVAC Original

Velvac's standard series of air cylinders are built for durability with a reputation for quality and affordability!

- These cylinders can be used in a wide variety of applications and conditions and can take the daily abuse associated with typical tailgate applications.
- They are backed with a 1 year warranty and are 100% tested!
- Available in push/pull, solenoid operated and spring return versions.



General Information	Feature #	Feature/Benefit
Cylinder Construction	A	Smooth cylinder grade aluminum tubing with a 32 RMS finish, tie rod construction secures end caps to tube
Front Cover	B	Die cast aluminum with Nitrile dirt wiper and pressure seal and oil impregnated bronze bushing and 1/4" NPT port
Rear Cover	C	Die cast aluminum with mounting hole for 1/2" clevis pin and 1/4" NPT port
Piston Cup	D	Emralon-coated, single piece, molded piston cup
Piston Rod	E	5/8" diameter 300 series stainless steel with 5/8" - 18 thread
Temp Rating		-20º to 185º F
Pressure Rating		10 psi minimum to 120 psi maximum Standard operating pressure 100 psi

2-1/2" Air Cylinder

Part No.	Cylinder Type	Stroke	Retracted Length	Extended Length
100122	Push/Pull	4"	9.89"	13.89"
100125	Spring Return Norm. Ext.	4"	10.62"	14.62"
100123	Push/Pull	6"	11.89"	17.89"
100126	Spring Return Norm. Ext.	6"	13.89"	19.89"
100124	Push/Pull	8"	13.89"	21.89"

- 2-1/2" Air Cylinders at 100 psi have a thrust of 483 lbs and a draw of 452 lbs

3-1/2" Air Cylinders

100131	Push/Pull	6.68"	13.60"	20.28"
100132	Push/Pull	8.68"	15.6"	24.28"
100136	Push/Pull	8.68"	18.43"	27.12"
100137*	Push/Pull	8.68"	15.60"	24.28"

- 3-1/2" Air Cylinders at 100 psi have a thrust of 962 lbs and a draw of 918 lbs

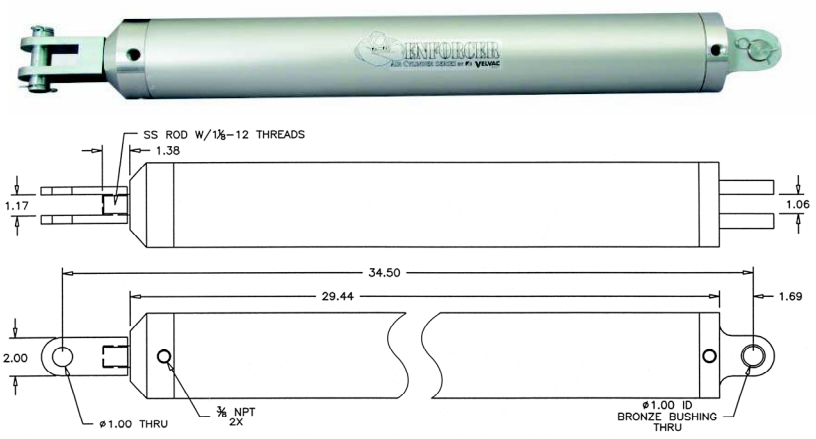
**Kit contains air cylinder Part No. 100132 and extended clevis kit #109051. Use this kit when replacing previous cylinder Part No. 101028*

***NOTE:** Air cylinders and tailgate kits are designed to operate the locking linkage on dump bodies and are **NOT** to be used as a means of mechanically holding the tailgate shut.*

For tailgate kits see page 65. Custom kits are also available - contact Velvac for more information.

ENFORCER
AIR CYLINDER SERIES BY VELVAC

Backed by a 3 year warranty



High Lift Cylinder - Made in the U.S.A.

General Information	Feature/Benefit
Cylinder Tube	Aluminum cylinder tubing with a 16 RMS finish
Front Cover	Solid aluminum with oil tight bronze brushing, Delrin seal and 3/8" NPT port
Rear Cover	Solid aluminum with mounting hole for 1" clevis pin and 3/8" NPT port
Piston Cup	Solid aluminum with Nitrile "O: ring rated at -40˚ to 185˚F and UHMW polyethylene wear band
Temp Rating	40 below to 185 above
Pressure Rating	Standard operating pressure 100 psi 10 psi minimum to 150 psi maximum

Part No.	Bore	Cylinder Type	Stroke	Retracted Length	Extended Length	Thrust at 100 psi	Draw at 100 psi
100424	4"	Push/Pull	24"	34.50"	58.50"	1,275 lbs	1,158 lbs

Tailgate Cylinders - Made in U.S.A.

ENFORCER
AIR CYLINDER SERIES BY VELVAC

Backed by a 3 year warranty

Part No.100613
Replaces MGM R5A

Part No. 100614

- Velvac's Enforcer series of tailgate cylinders is the serious choice for your tailgate
- Machined from 6061 series aluminum, 5/8" diameter 303 stainless steel shaft with 5/8" - 18 threads, Nitrile "O" rings and a UHMW polyethylene wear band, they are the ultimate tailgate cylinder
- Direct replacements to Haldex and MGM
- These cylinders slam the door on the competition and keep it closed
- Standard operating pressure 100 psi 90 psi minimum to 150 psi maximum

Part No.100615

Part No.100603
Replaces Haldex R3PT75

Part No.	Bore	Type	Cylinder Stroke	Retracted Length	Extended Length	Thrust at 100 psi	Draw at 100 psi
100603	6"	Spring Return	3"	16.18"	19.18"	400 lbs	2,400 lbs
100613	6"	Spring Return	4.38"	18.62"	23"	1,417 lbs	1,400 lbs
100614		*Bracket Kit for 100613					
100615		*Spacer kit for 100613					

***NOTE**: Extended/retracted lengths are measured from the tip of the shaft to the end of the cylinder*

**The bracket kit is used for new MGM installations, while the spacer kit is used when replacing the existing MGM cylinder*

AIR CYLINDER TAILGATE LOCK KITS

Part No.	Cylinder Diameter/Stroke
100022	2-1/2" x 8" Kit, contents as shown
100028	2-1/2" x 8" Kit, contents as shown, plus 50' of 3/8" black nylon tubing and clips
101002	3-1/2" x 8" Kit, contents as shown, plus 50' of 3/8" black nylon tubing and clips and extended clevis kit Part No. 019015 (see page 127)

Part No.	Cylinder Diameter/Stroke
101054	2-1/2" x 8" Kit, contents as shown
101058	3-1/2" x 8" Kit, contents as shown

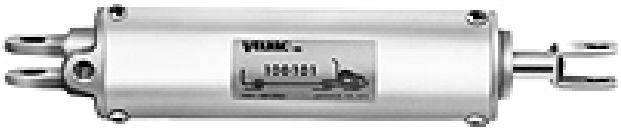
Part No.	Cylinder Diameter/Stroke
101055	2-1/2" x 8" Kit, contents as shown
101059	3-1/2" x 8" Kit, contents as shown

Part No.	Cylinder Diameter/Stroke
100144-7	3-1/2" x 8" Kit, contents as shown - designed to fit Ox bodies

Part No.	Cylinder Diameter/Stroke
100036	2-1/2" x 6" Kit
100037	2-1/2" x 8" Kit
101003	3-1/2" x 8" Kit with extended clevis, Part No. 019051
101004	3-1/2" x 6" Kit
101078	3-1/2" x 8" Kit with clevis Part No. 019049

- Solenoid operated cylinder kits allow the operator to electronically unlock tailgate without leaving the cab
- All kits include clevis and pins, electrical switch part No. 090177, cylinder with four-way solenoid attached

FIFTH WHEEL AIR CYLINDERS

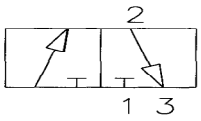
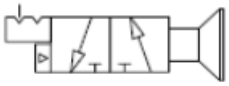
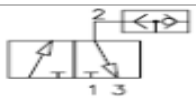
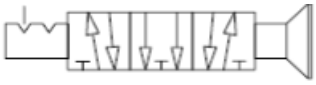


- Cast aluminum front and rear cover with 1/4" FTP port
- Mounting hole for 17/32" clevis, front and rear
- 100 psi operating pressure
- Gold anodized tube for corrosion resistance

Part No.	Bore	Stroke	Replaces	Retracted Length	Extended Length
100101	2-1/2"	6-3/4"	Holland XA-2524-R	12-5/8"	19-13/32"
100102	3-1/2"	2"	Holland XA-2524-R-13-1	7-21/32"	9-21/32"

Manual Push/Pull Valves

High flow dual pressure air valves for lift axles, suspension dump systems and tailgate control - solid aluminum construction - Nitrile seals for long cycle life - High impact knobs with face plates - Balanced stainless steel and aluminum spool design - Operating temperature range from -40° to +180 ° F - Stainless steel hardware - Normal operating pressure 100 psi

Part No.	Description	Valve Type	Ports	Air Flow	Applications	Schematic
320129	"Mini" valve w/ built in exhaust filter	3 Way	1/4" NPT	1.5 Cv	A	
320140	Valve w/ remote 1/4" NPT exhaust air pilot reset option	3 Way	3/8" NPT	2.2 Cv	A	
320147	"Mini" valve with integrated shuttle and built in exhaust filter	3 Way	1/4" NPT	1.5 Cv	A	
320128	3 position valve with center exhaust feature	4 Way	1/4" NPT	1.5 Cv	C	
320141	2 position with soft detent and 1/8" NPT air pilot reset option	4 Way	1/4" NPT	1.5Cv	B	
320146	2 position with soft detent and 1/8" NPT remote air pilot reset option	4 Way	3/8" NPT	2.2 Cv	A	
320151	2 position with soft detent	4 Way	3/8" NPT	2.2 Cv	A	

A - Applications include single acting air cylinders, lift axles or suspension systems

B - Applications include single or double acting air cylinders, lift axels

C - Applications include single or double acting air cylinders

HELPFUL HINT: To prevent damage to seals, premature air product failures, and possible warranty claim rejection, many OE manufacturers instruct customers to avoid the use of petroleum based products and de-icing agents in their air systems. It is recommended to change the air dryer filters regularly and use Velvac's line of silicone valve oils to help repair seal damage and extend the life of air valves.

Silicone Lubricant

- Specially formulated silicone lubricant protects and extends the life of air valves and air brake valves. Helps repair the drying effects caused by alcohol and antifreeze
- Light oil can be added directly into the air lines and the heavy oil can be added directly into the valves. Apply twice a year for a better operating system

Part No.	Description
320170	Light Weight Oil - 4 oz bottle
320171	Light Weight Oil - 5 pack of 4 oz bottles
320172	Heavy Weight Oil - 4 oz bottle
320173	Heavy Weight Oil - 5 pack of 4 oz bottles

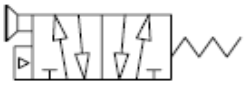
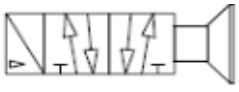
Brass Electric Coil Air Converter

- Solenoid override adapter mounts on the coil and allows you to convert the electrical signal into an air signal
- 1/8" NPT ports
- Solid brass construction

Part No.	Description
320148	Brass Electric Coil Air Converter

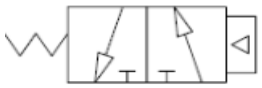
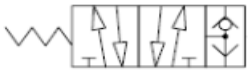
SOLENOID VALVES

Solenoid valves allow the driver to operate single or double acting cylinders, lift axles or suspension dump systems electronically - Constructed with the same materials as Velvac's air accessory valves - The solenoid valves have a 12-volt power consumption coil that uses only 4.8 watts - Normal operating pressure 100 psi

	Part No.	Description	Valve Type	Ports	Air Flow	Applications	Schematic
	320130	Spring return valve with 1/8" NPT external pilot	4 Way	3/8" NPT	2.2 Cv	A	
	320136	Spring return valve with internal pilot assist	4 Way	3/8" NPT	2.2 Cv	A	
	320143	Spring return valve with internal manual override	4 Way	3/8" NPT	2.2 Cv	B	
	320144	Spring return valve with air operated external manual override	4 Way	3/8" NPT	2.2Cv	B	
	320145	Push-pull valve with solenoid air pilot return	4 Way	3/8" NPT	2.2Cv	C	

A - Applications include lift axles or suspension systems
B - Applications include lift axles
C - Applications include single or double acting air cylinders and lift axles

AIR-PILOT VALVES

	Part No.	Description	Valve Type	Ports	Air Flow	Applications	Schematic
	320137	Air pilot spring return with 1/4" NPT air pilot supply support	3 Way	3/8" NPT	2.2 Cv	A	
	320138	Shuttle air pilot spring return valve	4 Way	3/8" NPT	2.2 Cv	B	
	320139	Air pilot spring return valve with 1/8" external pilot port	4 Way	3/8" NPT	2.2 Cv	B	

A - Applications include suspension systems
B - Applications include lift axles

AIR

Electrical 69-101

From our ISO and ABS coiled cable assemblies to plugs, fuses, sockets, terminals and switches, Velvac offers a full complement of electrical components to keep drivers doing what they do best… Driving!

No need to search and order these products from multiple vendors when Velvac is ready to be your single source. This is yet another way that Velvac keeps you… **in the Passing Lane.**

NEW — Indicates a new product added to catalog

VELVAC Original — Indicates an original Velvac® product

Revised Part No. — Indicates a revised part number

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For quantity and packaging information, refer to our price list.

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VELVAC® In the Passing Lane Since 1934

Seven-Way ISO Coiled Cable Assemblies

- Used in tractor/trailer systems requiring ISO 3731 style connectors-ISO pin prevents connections with non-ISO sockets
- 1/8, 2/10, 4/12 gauge cable
- Durable yellow outer jacket resists abrasion, provides excellent coil retention and offers quick identification of auxiliary circuit lines
- Heavy-duty zinc die cast plugs with spring guards included

Part No.	Working Length	Description
590251	12'	12" Lead Both Ends
590252	15'	12" Lead Both Ends
590253	15'	48" Lead One End, 12" Lead One End
590254	15'	72" Lead One End, 12" Lead One End

Seven-Way ABS Coiled Cable Assemblies

- Assemblies include heavy gauge wire commonly used to power trailer and dolly ABS
- 1/8, 2/10, 4/12 gauge cable
- Durable green outer jacket resists abrasion, provides excellent coil retention and offers quick identification of ABS lines
- Heavy-duty zinc die cast plugs with spring guards included
- Cable meets SAE J2394 June 1998 Type F requirements

Part No.	Working Length	Description
590160	12'	12" Lead Both Ends
590161	15'	12" Lead Both Ends
590163	15'	40" Lead One End, 12" Lead One End
590080	20'	2-12" Leads
590081	20'	1-12" Leads 1-40" Leads

NOTE: *See page 75 for ABS color code description*

Seven-Way Coiled Cable Assemblies

- Durable black outer jacket resists abrasion and provides excellent coil retention
- Heavy-duty zinc die cast plugs with spring guards included
- Operating temperature range of -55º to +185º F

12' Working Length

12" lead both ends

Part No.	Description
590154	6/12, 1/10 Gauge
590156	6/14, 1/12 Gauge

15' Working Length

12" lead both ends

Part No.	Description
590155	6/12, 1/10 Gauge
590157	6/14, 1/12 Gauge

15' Working Length

72" lead one end, 12" lead one end

Part No.	Description
590159	6/12, 1/10 Gauge

Seven-Way Straight Cable Assemblies

- Heavy-duty zinc die cast plugs with spring guards included

Part No.	Working Length	Description
590180	5'	6/12, 1/10 Gauge
590036	8'	6/12, 1/10 Gauge
590046	12'	6/12, 1/10 Gauge
590177	10'	6/12, 1/10 Gauge
590178	15'	6/12, 1/10 Gauge

- ABS assemblies include heavy gauge wire commonly used to power trailer and dolly ABS - ABS cable meets SAE J2394 June 1998 Type F requirements

ABS Assemblies

1/8, 2/10, 4/12 Gauge

Part No.	Working Length
590165	12'
590166	15'
590179	20'

- ISO assemblies used in tractor/trailer systems requiring ISO 3731 style connectors

ISO Assemblies

1/8, 2/10, 4/12 Gauge

Part No.	Working Length
590255	12'
590256	15'

ELECTRICAL

Six-Way Coiled Cable Assembly

- 12" working length
- Durable black outer jacket resists abrasion and has excellent coil memory
- Heavy-duty zinc die cast plugs with spring guards included

Part No.	Description
590061	6/14 Gauge
050029	Replacement Cable

Single Pole Coiled Cable Assemblies

Tailgate Lift Power Cable
For applications that require direct electrical power to trailer lift gates; **BLUE JACKETED**

- Rated at 265 amps intermittent service (30 seconds on/50 seconds off)
- Heavy-duty zinc die cast plugs with spring guards included
- 2 gauge cable

Part No.	Description
590135	12' Tailgate Lift Power Cable Assembly
590136	15' Tailgate Lift Power Cable Assembly

Tailgate Lift Battery Charging Cable
For applications where cables are used to charge trailer lift gate batteries; **GREEN JACKETED**, heavy-duty zinc die cast plugs with spring guards included

- 200 amp max for intermittent lift gate applications at 12 VDC
- 110 amp max for continuous applications at 12 VDC
- External ground option
- 4 gauge cable

Part No.	Description
590263	12' Tailgate Lift Battery Charging 4 Gauge Cable Assembly
590264	15' Tailgate Lift Battery Charging 4 Gauge Cable Assembly

Two Pole Coiled Cable Assemblies

- Rated at 200 amps for lift gate applications at 12 VDC
- 4 gauge cable
- Internally grounded
- Withstand temperatures of -85° to +185° F
- Durable black polyethylene outer jacket resists abrasions and chemical damage while offering excellent coil retention
- Heavy-duty zinc die cast plugs with springs guards included

Part No.	Description
590171	12' Two Pole Coiled Cable Assembly
590172	15' Two Pole Coiled Cable Assembly

Seven-Way Plugs

T-Grip

ISO Plug

Plastic Plug with Weather Guard

- Heavy-duty nickel-plated zinc die cast housings on all except plastic plug which has an unbreakable nylon housing
- Easy to remove interiors for quick replacements
- ATA color-coded wire terminals
- Internal clamp holds cable securely in place
- Standard seven-way plugs meet ATA and SAE J560 requirements; ISO plugs meet ISO 3731:1997 requirements

T-Grip Seven-Way Plugs

Part No.	Description
593057	Plug with Spring Guard
593101	ISO Plug with Spring Guard
593111	Plastic Plug with Weather Guard
593059	Replacement Interior for Part Nos. 593057, 593111
593060	Replacement Spring Guard

Single Grip Seven-Way Plugs

Part No.	Description
593022	Plug with Spring Guard
593024	Plug without Spring Guard
593017	Replacement Spring Guard
593019	Replacement Interior

Single Pole Plugs

Part No. 591161

Part No. 591105

- Used to provide power to heavy draw auxiliary trailer equipment
- Heavy-duty zinc die cast housings
- Power and ground terminals hold up to 1/0 gauge wire

Part No.	Description
591161	T-Grip Plug with Spring Guard
591105	Single Grip Plug without Spring Guard
591162	Replacement Interior for Part No. 591161
591109	Replacement Interior for Part No. 591105

Seven-Way Blade Type Plug

- Primarily used in RV applications
- Constructed of molded PVC for impact resistance

Part No.	Description
054001	Seven-Way Blade Type Plug

***NOTE**: See page 73 for seven-way blade type socket*

Two Pole Plug

- 200 amp, 4 gauge wire capacity
- Heavy-duty zinc die cast housing
- Internal ground
- Spring guard supports and protects cable

Part No.	Description
593116	T-Grip Plug with Spring Guard

Four-Way and Six Way Plugs

Plug with Spring Guard

Plug without Spring Guard

- Heavy-duty zinc die cast housings
- Plug locking system works with socket door to ensure proper hookup and prevent unintentional disconnections
- Spring guard on Part No. 055049 supports and protects cable

Part No.	Description
055059	Four-Way Plug with Spring Guard
055054	Four-Way Plug without Spring Guard
055049	Six-Way Plug with Spring Guard
055050	Six-Way Plug without Spring Guard
055055	Replacement Interior for Four-Way Plug
055051	Replacement Interior for Six-Way Plug

Truck Tractor to Trailer Adapters

- Heavy-duty zinc die cast housing on Part Nos. 591009 and 591010; also include solid brass pins and terminals and a spring clip to lock adapter and plug together
- Part Nos. 591115, 591116 and 59117 constructed of molded PVC for impact resistance

Part No.	Description
591009	Seven-Way Pin to Six-Way Adapter
591010	Six-Way Round to Seven-Way Adapter
591115	Seven-Way Blade to Four-Way Flat Adapter
591116	Seven-Way Round to Four-Way Flat Adapter
591117	Six-Way Round to Four-Way Flat Adapter

Continuity Testers

- LED indicators quickly identify complete circuits by glowing red; no light means problem circuit
- Fit standard seven-way blade type, four-way flat connectors and seven-way round
- Constructed of molded PVC for impact resistance
- Internally grounded

Part No.	Description
057118	Seven-Way Plug Circuit Tester
057119	Seven-Way Socket Circuit Tester
057120	Seven-Way Blade Circuit Tester
057121	Four-Way Flat Circuit Tester

Four-Way Flat Set

- 48" lead (female) side and 12" lead (male) side
- Constructed of molded PVC for impact resistance
- ATA color-coded:
  - White: Ground
  - Green: Right Turn and Brake Lights
  - Yellow: Left Turn and Brake Lights
  - Brown: Tail Lights

Part No.	Description
090226	Four-Way Flat - Female
090227	Four-Way Flat - Male

Together these replace Velvac Part No. 054003

Part No.	Description
054003	Four-Way Flat Set

Seven-Way Plug Cleaner

- Stainless steel brushes quickly clean electrical contacts for improved conductivity
- Durable plastic body

Part No.	Description
055034	Seven-Way Plug Cleaner

Seven-Way Circuit Breaker Sockets and Adapter Boxes

Deep Adapter Box with Bottom Entry

Deep Adapter Box with Back Entry

- Non-corrosive, reinforced nylon housing for added durability
- Designed for #8 ring terminals (see page 92)
- ATA color-coded contacts (see page 75 for ATA color code chart)
- Solid brass split pins are zinc-plated for corrosion resistance
- Each socket includes automatic reset circuit breakers with positive snap open/snap closed action to eliminate arcing (unless otherwise noted)
- Mounting holes are 4-1/2" on center and include steel bushings for added housing protection
- Adhesive-backed mounting gasket included
- Circuit breaker sockets meet SAE J560 requirements

Part No.	Description
055037	Socket with 20 Amp Circuit Breakers
055038	Socket with 30 Amp Circuit Breakers
055040	Socket without Circuit Breakers
055039	Replacement Cover Kit (includes Cover, Shaft Retainer, Steel Hinge Pin and Stainless Steel Spring)
055041*	Deep Adapter Box with Bottom Entry
055045*	Deep Adapter Box with Back Entry

*5/16" - 18"UNC cover plate studs and 2" inside depth

- Durable zinc die cast housings
- Solid brass split pin socket offers replaceable circuit breakers for circuit protection of trailer wiring systems
- Slanted door front for plug support
- Replaceable thermoplastic base plate with ATA color codes for quick identification
- Each socket includes automatic reset circuit breakers with positive snap open/snap closed action to eliminated arcing

Part No.	Description
593052	Socket with 20 Amp Circuit Breakers
593054	Socket with 30 Amp Circuit Breakers

Seven-Way Blade Type Socket

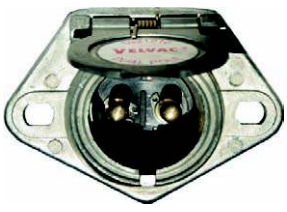
Optional Mounting Bracket

- Screw-type socket primarily used in RV applications
- 6-24 VDC
- Mounting holes are 2-1/4" on center
- Constructed of molded PVC for impact resistance
- Optional zinc-plated mounting bracket available and sold separately

Part No.	Description
054002	Seven-Way Blade Type Socket
090216	Mounting Bracket

NOTE: *See page 71 seven-way blade type plug*

Single and Two Pole Sockets



- Durable zinc die cast housings
- Power and ground terminals on single pole socket hold up to 1/0 gauge wire
- 200 amp, 4 gauge wire capacity on two pole socket
- Two pole socket has internal ground
- Single pole socket may be soldered or crimped
- Mounting holes 3" on center
- Rear housing 1-3/4" O.D.

Part No.	Description
591113	Single Pole Socket
593121	Two Pole Socket
591090	Replacement Interior for Single Pole Socket

Seven-Way Sockets

Two Hole Socket with Screw Terminals

Two Hole Socket with Push Terminals

Optional Terminal

- Non-corrosive, reinforced nylon housing for added durability
- Screw type socket with split pins designed for #8 ring terminals (see page 92)
- Push type socket with solid pins designed for 180° snap receptacles (see Part No. 056079 on page 93)
- Mounting holes are 3" on center
- Screw type socket includes screws and washers
- Gasket included on each socket
- Sockets meet SAE J560 requirements
- Protective rubber boot seals out moisture and contaminants - sold separately

Part No.	Description
055043	Two Hole Socket with Screw Terminals
055062	Two Hole Socket with Push Terminals
055063	Rubber Terminal Protector Boot

Part No. 593083

Optional Terminal Protector Boot

- Durable zinc die cast housings
- ABS plastic interior with ATA color codes for quick identification
- Solid brass pins
- Wires attached by set screw retainers
- Slanted door front for plug support
- Tongue and groove door design protects socket interior from dirt and moisture
- Mounting holes are 2-15/16" on center
- 1-13/16" rear housing length
- Terminal protector boot keeps terminals free from moisture and contaminants - sold separately
- Sockets meet SAE J560 requirements

Part No.	Description
593083	Socket with Solid Pins
593084	Socket with Split Pins
054017	Terminal Protector Boot
591022	Replacement Solid Pin Interior
591019	Replacement Cover Kit (includes Door, Hinge Pin & Spring)

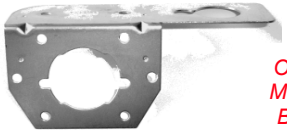
ISO Seven-Way Socket

- Used in tractor/trailer systems requiring ISO 3731 style connectors - ISO socket prevents connections with non-ISO plugs
- ISO color-coded yellow, non-corrosive, reinforced nylon housing
- Wires secured by set screws
- Mounting holes are 2-15/16" on center

Part No.	Description
593106	ISO Socket
054017	Terminal Protector Boot

Four-Way and Six-Way Sockets

Optional Terminal Protector Boot



Optional Mounting Bracket

- Durable zinc die cast housings
- Solid brass split pins
- Locking system on door works with plug to ensure proper hook-up and prevent unintentional disconnections
- Optional protector boot keeps terminals free of moisture and contaminants - sold separately

Part No.	Description
055052	Six-Way Socket
055056	Four-Way Socket
090217	Mounting Bracket
090218	Terminal Protector Boot
055053	Replacement Six-Way Interior

Battery and Starter Cable

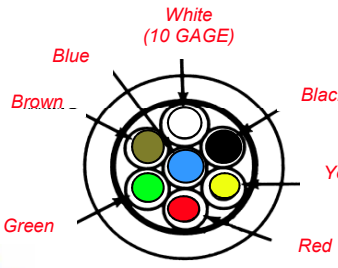
Red Jacketed		
Part No.	Coil Length	Wire Gauge
058033	25'	6
058033-7	100'	6
058035	25'	4
058035-7	100'	4
058037	25'	2
058037-7	100'	2
058039	25'	1
058039-7	100'	1
058241	25'	1/0
058241-7	100'	1/0
058243	25'	2/0
058243-7	100'	2/0
058245	25'	3/0
058247	25'	4/0

Black Jacketed		
Part No.	Coil Length	Wire Gauge
058233	25'	6
058233-7	100'	6
058235	25'	4
058235-7	100'	4
058237	25'	2
058237-7	100'	2
058239	25'	1
058239-7	100'	1
058041	25'	1/0
058041-7	100'	1/0
058043	25'	2/0
058043-7	100'	2/0
058045	25'	3/0
058047	25'	4/0

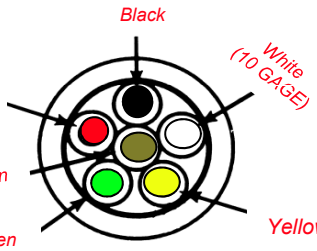
Battery terminals and lugs sold separately (see pages 77 and 78)

- Durable thermoplastic outer jacket keeps cable flexible at low temperatures and resists abrasion, ozone, oil and road salts
- Soft annealed stranded copper
- Cable meets SAE J1127 Type SGT requirements

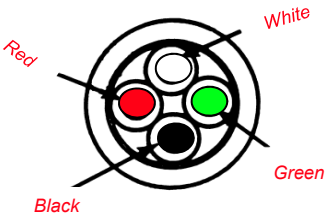
Multiple Conductor Cable



Seven-Way Conductor



Six-Way Conductor



Four-Way Conductor

- ABS cable meets SAE J2394 June 1998 Type F requirements

ATA COLOR CODE CHART

White	Ground return to towing vehicle
Black	ICC required marker and clearance light
Yellow	Left-hand directional signal
Red	Stoplights
Green	Right-hand directional signal
Brown	Tall lamps, 3-bar marker lamps
Blue	Auxiliary

Part No.	Jacket Color	Coil Length	Conductor	Gauge
050019	Black	100'	Seven	6/12, 1/10
050019-7	Black	500'	Seven	6/12, 1/10
050042	Black	100'	Seven	14
050042-7	Black	500'	Seven	14
050037	Green(ABS)	100'	Seven	1/8, 2/10, 4/12
050051	Yellow(ISO)	50'	Seven	1/8, 2/10, 4/12
050052	Yellow(ISO)	100'	Seven	1/8, 2/10, 4/12
050007	Black	100'	Six	14
050007-7	Black	500'	Six	14
050001	Black	100'	Four	14
050001-7	Black	500'	Four	14

Battery-to-Battery Crossover Cable

- 2/0 gauge wire
- Molded lead terminals and black neoprene outer jacket

Part No.	Description
058212	12" Battery Crossover Cable

Battery Cable

- 2/0 gauge wire
- Molded copper lug and lead terminal
- Black PVC outer jacket

Part No.	Description
058117	12" Battery Cable

Stud Top Battery Cable

- 2/0 gauge wire
- Molded tin-plated copper lugs and black PVC outer jacket

Part No.	Color	Description
058118	Black	8" Stud Top Battery Cable
058128	Red	8" Stud Top Battery Cable
058119	Black	12" Stud Top Battery Cable
058129	Red	12" Stud Top Battery Cable

Ground Strap

- 4 gauge wire
- Molded zinc-plated steel lugs and tin-plated copper stranding
- 7/16" diameter bolt hole

Part No.	Description
058116	Ground Strap (12" - 14")

800A Booster Cable

These heavy duty battery cables are rated at 800 amps and are designed to handle jump starting heavy duty equipment

- Solid copper parrot clamps for increased conductivity
- Tangle proof design
- Braided copper wire remains flexible even in subzero temperatures
- Includes strong plastic storage container to protect cables from damage when not in use

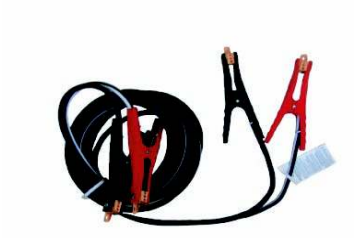
Part No.	Description
058151	800A Booster Cable

Switch-to-Starter Battery Cable

- 4 gauge wire
- Molded zinc-plated steel lugs and red PVC outer jacket

Part No.	Description
058115	18" Switch-to-Starter Cable

Battery Booster Cables



- Copper stranded, 4 gauge wire
- Rated at 400 amps
- Black PVC outer jacket
- Red and black vinyl coated clamps feature solid copper contacts and heavy springs for positive clamping

Part No.	Description
058152	16' Battery Booster Cable

- Fully annealed electrolytic copper construction provides excellent conductivity
- Wire gauge identification marked on lug barrels
- Heat -shrink tubing should be used over all battery terminal connections (see page 98)

Standard Battery Lugs

- Unique flared barrel design eliminates wire strand hang-ups
- Unplated
- Crimpable

Part No.	Wire Gauge	Stud Size
056033	6	1/4"
058073	6	5/16"
058074	6	3/8"
056034	4	1/4"
058076	4	5/16"
058077	4	3/8"
058078	4	1/2"
058079	2	5/16"
056035	2	3/8"
058081	1	5/16"
056036	1	3/8"

Part No.	Wire Gauge	Stud Size
058082	1	1/2"
058083	1/0	5/16"
056037	1/0	3/8"
056038	1/0	1/2"
058084	2/0	5/16"
056039	2/0	3/8"
056040	2/0	1/2"
058086	3/0	3/8"
056041	3/0	1/2"
058088	4/0	3/8"
056042	4/0	1/2"

Heavy-Duty Battery Lugs

- Tin-plated for corrosion resistance
- Crimpable

Part No.	Wire Gauge	Stud Size
058325	1/0	3/8"
058326	1/0	1/2"
058327	2/0	3/8"
058328	2/0	1/2"

Part No.	Wire Gauge	Stud Size
058329	3/0	3/8"
058330	3/0	1/2"
058331	4/0	3/8"
058332	4/0	1/2"

Heavy-Duty Flared Lug Maintenance Kit

- Kit includes 50 lugs in ten varieties ranging from 6 to 4/0 gauge with stud sized of 1/4", 3/8" and 1/2"
- Packaged in a durable plastic case with product information shown on inside label for easy identification

Part No.	Qty
056033	6
056034	6
056035	6
056036	6
056037	6

Part No.	Qty
056038	4
056039	4
056040	4
056041	4
056042	4

Part No.	Description
057002	Heavy-Duty Flared Lug Maintenance Kit

Flared Butt Connectors

- Seamless construction
- Tin-plated for corrosion resistance

Part No.	Wire Gauge
058020	1
058021	1/0
058022	2/0
058023	3/0
058024	4/0

ELECTRICAL

Crimpable or Solderable Battery Terminals

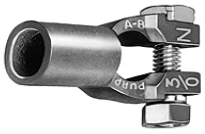
- One-piece, cast copper construction
- Lead-plated for corrosion resistance
- Cable size clearly designated on terminals to ensure correct size selection
- Polarity shown on terminals to avoid mixing positive and negative connections.
- Tool die and letter codes permanently marked on terminals to simplify installation with other manufacturers' tools
- Uniform wall thickness assures high reliability when connector is crimped on cable
- Long barrels for added strength and vibration resistance
- Heat-shrink tubing should be used over all battery terminal connections (See page 97)

HELPFUL HINT:

Most Velvac terminals are color-coded according to wire gauge specifications:

4 - Green
2 - Pink
1 - Pink
1/0 - Black
2/0 - Orange
3/0 - Purple
4/0 - Yellow

Straight Barrel Terminals

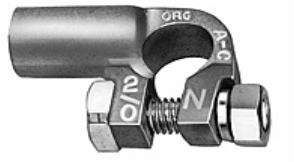


Part No.	Wire Gauge	Polarity
058050	4	Universal
057050	1	Positive
057051	1	Negative
058001	1/0	Positive
058002	1/0	Negative
057052	2/0	Positive
057053	2/0	Negative
057054	3/0	Positive
057055	3/0	Negative
058057	4/0	Positive
058058	4/0	Negative
058011	Replacement Nut and Bolt	

Right Angle Barrel Terminals

Part No.	Wire Gauge	Polarity
057056	2/0	Positive
057057	2/0	Negative
058055	3/0	Positive
058056	3/0	Negative
058011	Replacement Nut and Bolt	

Right Elbow Terminals



Part No.	Wire Gauge	Polarity
058052	1/0	Positive
058051	1/0	Negative
058005	2/0	Positive
058006	2/0	Negative
058009	3/0	Positive
058010	3/0	Negative
058011	Replacement Nut and Bolt	

Protective Battery Washers

- Washers seal out acid fumes protecting terminals from corrosion
- Packaged in convenient plastic screw top jars.

Part No.	Description
058094	Protective Battery washers - **Red**
058095	Protective Battery washers - **Black**

Left Elbow Terminals

Part No.	Wire Gauge	Polarity
058054	1/0	Positive
058053	1/0	Negative
058003	2/0	Positive
058004	2/0	Negative
058007	3/0	Positive
058008	3/0	Negative
058011	Replacement Nut and Bolt	

Battery Post and Terminal Cleaner

Part No.	Description
058046	Battery Post and Terminal Cleaner

Battery Stud Nut

- Stainless steel construction

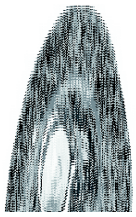
Part No.	Description
058068	3/8" Battery Stud Nut

Medium-Duty Terminal

- For 6 to 2 gauge wire

Part No.	Description
058012	Medium-Duty Terminal

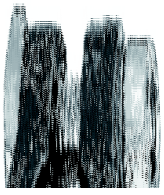
Side Post Terminal



- For 6 to 2 gauge wire

Part No.	Description
058013	Side Post Terminal

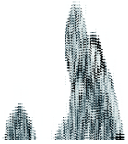
Heavy-Duty Terminal



- For 1" 4/0 gauge wire

Part No.	Description
058016	Heavy Duty Terminal

Three-Way Battery Terminals



- For 1 to 2/0 gauge wire
- Lead construction with zinc-plated steel bolts and nuts
- Both positive and negative terminals included

Part No.	Description
058071	Three-Way Battery Terminals

Marine Terminal

- 5/16" post

Part No.	Description
058019	Marine Terminal

Crimpable or Solderable Terminals for Stud Top Batteries

Base Terminal

Flag Terminal

Part No.	Wire Gauge	Polarity
058090	1/0	Universal
058091	2/0	Universal
058092	3/0	Universal
058093	4/0	Universal

Part No.	Wire Gauge	Polarity
058251	1/0	Universal
058252	2/0	Universal
058253	3/0	Universal
058254	4/0	Universal

OEM Battery Bolt

- Recessed groove permits attachment of battery charger or jumper cables
- Zinc-plated steel construction
- 3/8" - 16" UNC
- 1-3/16" long

Part No.	Description
058296	OEM Battery Bolt

Stud Mount To-Post Mount Conversion Terminals

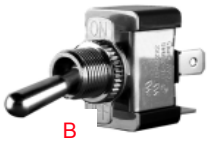
- All lead construction
- Both positive and negative posts included

Part No.	Description
058017	Stud Mount-to-Post Mount Conversion Terminals

ELECTRICAL

Heavy Duty Toggle Switches

A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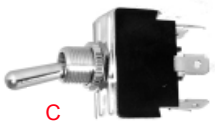
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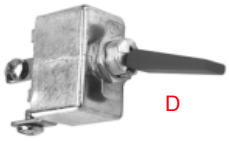
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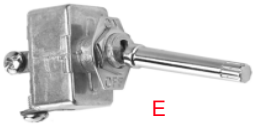
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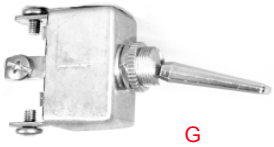
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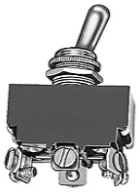

H

- Frame and support constructed from steel with zinc chromate, brass terminals
- Neoprene-sealed toggles are moisture and dust resistant
- Fully assembled with locating ring/tongue nut (and On/Off faceplate on single pole switches only)
- 1/2" diameter recommended mounting hole- all toggles must be installed with provided hex nut behind panel to prevent damage during installation
- Packaging for all switches displays easily on pegboards or wire display racks (see page 154)

Part No.	Photo	Poles	Amp	VDC	Circuitry	Terminals	Miscellaneous
SINGLE POLE							
090176	B	SPST	21A	14	On / Off	(2) 0.250" Flat Blade	
090177	A	SPST	21A	14	On / Off	(2) Screw	
090199	B	SPDT	21A	14	On / Off / On	(3) 0.250" Flat Blade	
090200	A	SPDT	21A	14	On / Off / On	(3) Screw	
090201	A	SPDT	21A	14	(On) / Off / (On)	(3) Screw	
090202	A	SPDT	21A	14	On / Off / (On)	(3) Screw	
090191	F	SPST	30A	12	On / Off	(3) 0.250" Flat Blade	Red LED handle****
090192	F	SPST	30A	12	On / Off	(3) 0.250" Flat Blade	Green LED handle****
090193	F	SPST	30A	12	On / Off	(3) 0.250" Flat Blade	Blue LED handle****
090186	D	SPST	50A	12	On / Off	(2) Screw	Black handle**
090187	D	SPST	50A	12	On / Off	(2) Screw	Red handle**
090188	D	SPST	50A	12	On / Off	(2) Screw	Chrome handle**
090189	E	SPST	50A	6/12/24	On / Off	(2) Screw	1-5/8" Chrome handle
090184	G	SPDT	50A	6/12/24	On / Off / On	(3) Screw	Chrome plated***
090040	—	SPDT	50A	6-24	On / On	(3) Screw	
090041	—	SPDT	50A	6-24	On / Off	(2) 0.250" Flat Blade	
090043	—	SPDT	50A	6-24	(On) / Off / (On)	(3) Screw	
DOUBLE POLE							
090203	A	DPST	21A	14	On / Off	(4) Screw	
090204	C	DPST	21A	14	On / Off	(4) 0.250" Flat Blade	
090048	H	DPDT	21A	14	On / On	(6) Screw	
090205	C	DPDT	21A	14	On / On	(6) 0.250" Flat Blade	
090206	C	DPDT	21A	14	On / Off / On	(6) 0.250" Flat Blade	
090208	A	DPDT	21A	14	(On) / Off / (On)	(6) Screw	
090209	C	DPDT	21A	14	(On) / Off / (On)	(6) 0.250" Flat Blade	
"O" RING SEALED							
090179	A	SPST	21A	14	On / Off	(2) Screw	
090194	A	SPST	21A	14	(On) / Off	(2) Screw	
090196	A	SPDT	21A	14	On / On	(3) Screw	
090197	A	SPDT	21A	14	On / Off / On	(3) Screw	
090198	B	SPDT	21A	14	On / Off / On	(3) 0.250" Flat Blade	
090207	A	DPDT	21A	14	On / Off / On	(6) Screw	

( ) indicates MOMENTARY ACTION

** Die cast housing with silver-plated contacts, heavy copper terminals, stems measure 15/32" dia. X 15/32" long

*** Paddle type handle

****Black toggle handles tipped with LED, min draw requirements for LED is 20 mA at 12 VDC

Indicator Lights

- Chrome housing and nylon base
- LED's rated for 15mA at 12 VDC
- 100,000 hours estimated bulb life expectancy
- Temperature rating up to +185° F (85° C)
- 20 AWG lead wires
- 7/16" diameter recommended mounting hole

Part No.	LED Color
090213	Red
090214	Amber
090215	Green

Wiper Control Switch

Operating Temperature: -20° to +160° F

Washer Motor: 6 amps max. current draw

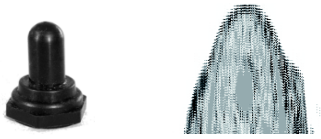
Nominal Voltage: 12 VDC (9 VDC min., 16VDC max.)

Terminal Configuration: 8 pin amp connector-mates with amp connector 770579-1 and 171639-1 socket terminals (not included and not available from Velvac)

- Integrates multi-speed wiper and washer functions into a single dashboard device
- Backlit for easy identification
- Fits standard 22 mm x 44 mm opening

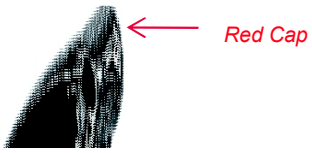
Part No.	Description
090120	Wiper Control Switch

Toggle Accessories



- Protect toggle switches from moisture, dust and dirt
- UV-resistant, black silicon construction
- Built-in hex nut base screws on to most Velvac toggle switches
- Rated for -40° to +350° F (+180° C)

Part No.	Description
090210	Full Boot
090211	Half Boot



- Rugged, spring-loaded design provides protection against accident actuation
- Mounting hole accepts all standard Velvac toggles with 15/32" mounting stems

Part No.	Description
090212	Safety Cover

License/Utility Lights

- 12 VDC
- Weather-proof gasket
- 31" wire lead with .250" male disconnect
- 89 bulb
- Fits 1-1/4" mounting hole

Part No.	Description
090173	Twist-In License/Utility Light

- Fits GM/GMC trucks with step bumper
- 12 VDC
- 7-7'8" wire lead with protective boot where wire attaches to light and self-grounding single post adapter
- 67 bulb
- Mounting holes approx. 2-11/16" on center

Part No.	Description
090174	Bumper Mount License/Utility Light

Battery Disconnect Switch

- Single pole, two position: on/off
- Continuous rating 175 amps (max)
- Momentary rating 1000 amps (max)
- *Momentary use only* --- 15 sec. on/5 min. off
- Heavy gauge, plated steel casing
- Die cast lever
- 3/4" diameter mounting stem
- UL approved for 6 to 36 VDC

Part No.	Description
090104	Battery Disconnect Switch

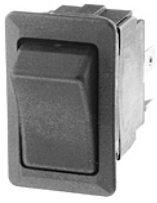
Push Button Switch

- Rated for 50 amps at 12 VDC
- 5/8" - 32 UNS mounting bushing for panels up to 1/2" thick
- Push for momentary-on action
- Die cast with silver/copper contacts and two screw terminals
- Dust and moisture resistant; boot nut included

Part No.	Description
090190	Momentary Push Button Switch

ELECTRICAL

Full Size Rocker Switches



Standard

Standard

Part No.	Poles	Circuitry	Terminals
090109	SPST	On / Off	(2) .250" Flat Blade
090150	SPST	(On) / Off	(2) .250" Flat Blade
090151	SPST	(On) / Off	(2) Screw
090146	SPST	On / (Off)	(2) .250" Flat Blade
090147	SPST	On / (Off)	(2) Screw
090153	SPDT	On / (On)	(3) Screw
090111	DPST	On / Off	(4) .250" Flat Blade
090134	DPST	On / Off	(4) Screw
090148	DPST	On / (Off)	(4) .250" Flat Blade
090149	DPST	On / (Off)	(4) Screw
090136	DPDT	On / On	(6) .250" Flat Blade
090135	DPDT	On / On	(6) Screw
090155	DPDT	On / (On)	(6) Screw
090110	DPDT	On / Off / On	(6) .250" Flat Blade
090137	DPDT	On / Off / On	(6) Screw
090158	DPDT	On / Off / (On)	(6) .250" Flat Blade
090159	DPDT	On / Off / (On)	(6) Screw

( ) indicates MOMENTARY ACTION

Lighted

Lighted

Part No.	Poles	Circuitry	Terminals	Light Color
090123	SPST	On / Off	(3) Screw	Red
090124	SPST	On / Off	(3) Screw	Green
090125	SPST	On / Off	(3) Screw	Amber
090128	SPST	On / Off	(3) .250" Flat Blade	Red

- 21 amps at 14 VDC
- .830" x 1.450" recommended mounting hole
- Universal, snap-in design allows for easy installation
- Moisture and dust resistant
- Packaging for all new switches displays easily on pegboards or wire display rack (see page 154)

Accessories

Part No.	Description
090219	End Bracket
090220	Middle Bracket
090221	Single Bracket
090222	Panel Plug

On / Off Round Rocker Switch

- Single pole switches rated for 10 amps at 12 VDC
- 12 VDC illumination voltage
- Snap-in mounting design for easy installation in .79" diameter mounting hole

Part No.	Poles	Terminals	Light Color
090167	SPST	(3) .187" Flat Blade	Red
090168	SPST	(3) .187" Flat Blade	Amber
090169	SPST	(3) .187" Flat Blade	Green

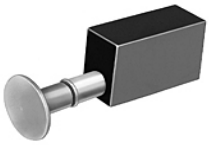
- Two positions (SPST) with two .187" silver-plated brass blade terminals
- On/Off designation permanently etched on rocker switch
- Snap-in mounting design for easy installation in .79" diameter mounting hole

Part No.	Description
090166	Round Rocker Switch with On/Off Markings

Two-Speed Axle Switch and Automatic Terminal Block Switch

Terminal Block Switch

Push/Pull Two Position Axle Switch



- Terminal block switch used in conjunction with axle switch to control two-speed electric axle shift
- Axle switch has red knob and uses (3) .156" female snap plugs (see page 93)

Part No.	Description
090078	Two-Speed Axle Switch
090079	Automatic Terminal Block Switch

Three Wire Connector

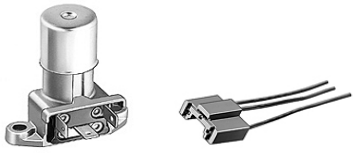
Part No. 090225

Part No. 090085

- Use as a flasher socket or any other three wire application (see page 86 for flashers)
- 18 gauge 12" leads

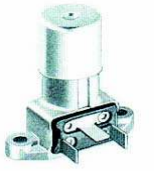
Part No.	Description
090225	Three Wire Connector
090085	Three Wire Socket

Dimmer Switches and Socket Assemblies



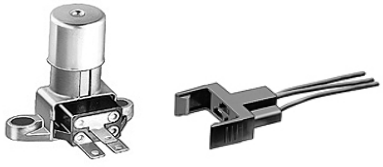
Applications	Year
Chrysler - Floor Mounted (1841895, 1881938, 2097628, 2291202, CH-2437)	1959-83
Dodge Trucks	1959-79
AMC (3156124, 3160926)	1959-83

Part No.	Description
090073	Dimmer Switch
090083	Dimmer Switch Socket Assembly



Applications	Year
All Ford - Floor Mounted (COTF-130A024A COTZ-13A024A, SW-263)	1959-83

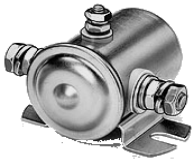
Part No.	Description
090081	Dimmer Switch
090083	Dimmer Switch Socket Assembly



Applications	Year
Vehicles without Auto Dimmer	
All GM - Floor Mounted (1997028, 1997037, 3841892, D808)	1961-83
All Jeep Floor Mounted (5461816)	1974-82

Part No.	Description
090080	Dimmer Switch
090082	Dimmer Switch Socket Assembly

Universal Solenoids



- Designed to operate a minimum of 50,000 cycles
- 125 amps at 12 VDC
- Continuous voltage
- SPST, normally off, one circuit off/on
- 5/16" side studs, #10 top stud/s
- Both include hardware

Part No.	Description
090054	Three Stud Universal Solenoid
090056	Four Stud Universal Solenoid

ELECTRICAL

Universal Ignition Switch

Keys Included

- Single throw ignition
- 6 to 24 VDC
- 3/4" diameter mounting stem with two terminals

Part No.	Description
090076	Universal Ignition Switch

Push / Pull Switches

- Rated for 15 amps at 12 VDC, 25 amps at 6 VDC
- Heavy-duty, two position (SPST) push/pull switch with two brass screw terminals
- Brass and chrome construction
- 3-1/8" overall length x 7/8" wide
- Mounting stem measures 3/8" in diameter and 1-1/4" long
- Accommodates 1" panel with stainless steel springs

Part No.	Description
090181	Push/Pull Switch

- Rated for 75 amps at 6 to 28 VDC
- Heavy-duty, two position (SPST) push/pull switch with two brass screw terminals
- Chrome-plated metal knob
- Mounting stem measures 15/32" in diameter and 5/8" long

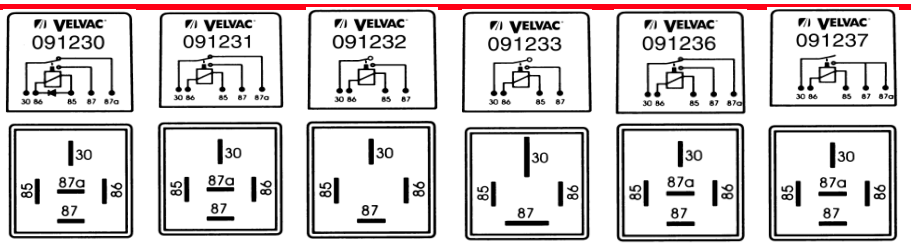
Part No.	Description
090180	Push/Pull Switch

ELECTRICAL

RELAYS

Heavy-Duty Relay Kit

- Ideal for powering accessories with high voltage draws such as fog lights, power windows and fans
- Help ensure maximum power available to accessories and lights
- Kit includes heavy-duty relay, switch, switch mounting plate, 20' of 14 gauge wire and terminals



Part No	Description	Voltage	Amp Rating	Terminals	Mounting Tab
091230	Relay with Diode	12	40	5	No
	Application: Diode eliminates voltage spikes which can occur when the relay is shut off, can run up to 30 amps continuously				
091231	Relay	12	40	5	Yes
091232	Relay	12	40	4	Yes
	Application: Used to run up to 30 amps continuously				
091236	Relay	24	20	5	Yes
091237	Dual Relay	12	40	5	Yes
	Application: Controls two separate 20 amp accessories; also used as a single 40 amp relay				
091233	Heavy-Duty Relay	12	70	4	Yes
	Application: Ideal for controlling larger devices; can run up to 50 amps continuously				
091235	Heavy-Duty Relay Kit	12	70	4	Yes

In addition to standard package of one, all relays may also be ordered in Bulk Shop Packs of 25 by adding a -7 to the part number shown

Electro-Mechanical and Electronic Flashers

Style A
Electro-Mechanical

Style B
Electronic

- Designed and tested to perform in excess of one million cycles
- Audible signal indicates that flasher is activated
- Non-polarity sensitive
- 12 VDC operating range

Part No.	Style	Terminals	Color	Lamp Rating	Flash Rate FPM	Amp Rating
091215	A	2	Clear Smoke	1-10	60-120	25
091216	A	3	Clear Smoke	1-10	60-120	25
Applications: Fits most American cars, older import cars and light trucks						
091208	B	2	Red	2-12	70-120	25
091209	B	3	Clear Smoke	2-12	70-120	25
Applications: Straight truck, single trailer, high flasher usage						
091210	B	2	Clear Smoke	2-16	70-120	35
091211	B	3	Clear Smoke	2-16	70-120	35
Applications: Straight truck, single or double trailer or any vehicle with high flasher usage						
091212	B	2	Clear Smoke	2-20	70-120	45
091213	B	3	Black	2-20	70-120	45
Applications: Severe duty, double or triple trailers or vehicles where flasher is frequently used						
091214	B	3	Clear Smoke	10 Lamps/Side*	60-120	25
Application: Alternating "Wig-Wag" headlight application for emergency vehicles and school buses						

** 10 lamps per side (1156, 1157) or 4 (H4651) sealed beams*
See page 83 for three wire flasher socket Part No. 090225

Thermal Flashers

- Flash two to three lamps for turn signals, two to six lamps for hazard warning

Part No.	Description
091203	Two Terminal
091204	Three Terminal

NOTE: *A thermal flasher (fixed load) is NOT recommended for use when a trailer is connected to a car or truck. A heavy-duty flasher (variable load) is recommended for this type of application*

Solid State LED Flasher

- 6 amp flasher provides constant flash rate of 90 FPM for new LED lights
- Compact size fits standard two terminal flasher footprint - includes remote mount 36" long ground wire

Part No.	Description
091225	Solid State LED Flasher

Heavy-Duty Flashers

- 12 lamp and 25 amp rating
- Last five times longer than thermal flashers
- Three-terminal flasher for vehicles equipped with flashing dash lights
- Operate at voltages as low as 7 VDC

Part No.	Description
091201	Two Terminal
091202	Three Terminal

Standard Circuit Breakers

- Copper colored battery stud provides easy identification
- "Waterproof" sealant and insert molded studs on waterpproof breakers make them suitable for marine applications and trailer connections
- 12 VDC
- Meet applkicable SAE J553 requirements
- Each circuit breaker includes two #10-32 nuts

Part No.		
Without Mounting Strap	With Mounting Strap	Description
091011	091051	10 Amp
091015	091052	15 Amp
091020	091053	20 Amp
091025	091054	25 Amp
091030	091055	30 Amp
091040	091056	40 Amp
091050	091057	50 Amp

Mack/Navistar Plug-In Circuit Breakers

- Fit Mack and Navistar breaker blocks
- 12 VDC
- -10° F (-23° C) to 150° F (65° C) operating temperature range
- Type II Modified Reset type breakers meet applicable SAE J553 requirements

Part No.		
Mack	Navistar	Description
091520	091530	10 Amp
091521	091531	15 Amp
091522	091532	20 Amp
091523	091533	25 Amp
091524	091534	30 Amp

Fuse Clip Circuit Breakers

- Replacement for 1/4" x 1 1/4" glass fuses
- 12 VDC
- -25° F (-32° C) to 180° F (82° C) operating temperature range
- Type II Modified Reset type breakers meet applicable SAE J553 requirements

Part No.	Description
091080	10 Amp
091081	15 Amp
091082	20 Amp
091083	30 Amp

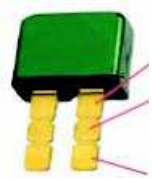
Four-Way Rotary Handle Valve

Economic

- Type III switchable breaker typically used in auxiliary and accessory circuits for trucks, buses, RVs and marine applications
- Flush mount with sems nut installed
- 30 VDC
- -25° F (-32° C) to 180° F (82° C) operating temperature range
- Measures 2" x 3" overall
- Meets SAE J1625 requirements

Part No.	Description
091005	60 High Amp
091006	80 High Amp
091007	100 High Amp
091008	120 High Amp
091003	150 High Amp
091004	Economic 150 Amp

Universal Snap-off Blade Type Circuit Breakers



Tab C - For Kenworth Trucks

Tab B - For Chrysler, Dodge, Ford, Nissan, Toyota, GMC, Navistar, (IHC) Trucks

Tab A - For Ford Pickups

- Replacement for ATC/ATO® blade type fuses
- Color-coded for easy identification
- 12 VDC
- -40° F (-40° C) to 185° F (85° C) operating temperature range
- Type I Automatic Reset type breakers meet applicable SAE J553 requirements

Part No.	Description	Color
091076	6 Amp	Silver
091071	10 Amp	Red
091072	15 Amp	Blue
091073	20 Amp	Yellow
091074	25 Amp	Silver
091075	30 Amp	Green

ATM and MAXI™ Circuit Breaker

ATM/MINI®

MAXI™

- Replacement for ATM/MINI® and MAXI™ blade type fuses
- 12 VDC, rated 5 to 30 amps
- -40° F (-40° C) to 185° F (85° C) operating temperature range
- ATM/MINI® Type II Modified Reset type breakers and MAXI™ Type I Automatic Reset type breakers meet applicable SAE J553 requirements

Part No.		
ATM/MINI®	MAXI™	Description
091500-3	—	5 Amp
091501	091510-10	10 Amp
091502	091511-10	15 Amp
091503	091512-10	20 Amp
091504	091513-10	25 Amp
091505	091514-10	30 Amp

Note: dash "-x" indicates package qty

Fuses

AGC, AGX and SFE Fuses

Part No.			
AGC	AGX	SFE	Description
091131-5	—	—	1 Amp
091132-5	—		2 Amp
091133-5	—		3 Amp
—	—	See Below	4 Amp
091135-5	—	—	5 Amp
—	—	See Below	6 Amp
091137-5	—	See Below	7-1/2 Amp
—	—	See Below	9 Amp
091140-5	—	—	10 Amp
091141-5	—	—	15 Amp
091142-5	See Below	091171-5	20 Amp
091143-5	—	—	25 Amp
091144-5	See Below	091172-5	30 Amp

AGX and SFE Fuse Assortments

Part No.	Description
091251	AGX 20-30 Amp Assortment includes (2) 20 Amp. (2) 25 Amp and (2) 30 Amp AGX Fuses

SFE 7-1/2, 9

AGC 1-30 / SFE 20, 30
AGC 20, 30

SFE 14

SFE 4, 6

ATC/ATO®

ATM/MINI®

MAXI™

ATC/ATO®, ATM/MINI® and MAXI™ Fuses

Part No.				
ATC/ATO®	ATM/MINI®	MAXI™	Description	Color
—	091300-5	—	2 Amp	Gray
091173-5	091301-5	—	3 Amp	Violet
091174-5	091302-5	—	4 Amp	Pink
091175-5	091303-5	—	5 Amp	Tan
091177-5	091304-5	—	7-1/2 Amp	Brown
091180-5*	091305-5*	—	10 Amp	Red
091181-5*	091306-5*	—	15 Amp	Blue
091182-5	091307-5*	091400-5	20 Amp	Yellow
091183-5*	091308-5*	—	25 Amp	Clear
091184-5*	091309-5*	091401-5	30 Amp	Green
—		091402-5	40 Amp	Orange
—		091403-5	50 Amp	Red
—		091404-5	60 Amp	Blue
		091406-3	80 Amp	Natural

***NOTE**: dash "- xx" indicates package quantity*

** In addition to display card packaging, fuses may also be ordered in bulk packs of 25 by adding a 25 to the part number shown*

ATC/ATO® Fuse Assortment with Combination Fuse Tester/Puller

- Assortment contains 42 ATC fuses-seven each of the six most popular fuses from 5 to 30 amps
- Combination fuse tester/puller tests and removes blade type and a variety of glass fuses
- Reclosable heavy-duty display pkg.

Part No.	Description
091254	Fuse Assortment with Tester

ATC/ATO® Fuse Panel

- Accepts blade-type fuses, auto or manual reset circuit breakers
- 6 circuits, 30 amps per circuit with quick connect terminals
- No top cover needed; recessed fuse contacts provide touch-safe protection
- Black thermoplastic construction - temperature rating of -20° F (29° C) to +150° F (65° C)
- Fuses/Circuit Breakers sold separately

Part No.	Description
091427	ATC/ATO® Fuse Panel

Electrical Junction Box

- Measures 6-9/16" x 3-1/4"
- Includes all fasteners and grommets

Part No.	Description
055060	Electrical Junction Box

ELECTRICAL

Universal In-Line Fuse holder

- Universal nylon twist-lock fuse holder for 1/4" x 1-1/4" AGC, AGA, AGW, AGX and SFE fuses
- 20 amp maximum load
- 14 gauge lead wire
- Fuse sold separately

Part No.	Description
091188	Universal In-Line Fuse holder

Heavy Duty In-Line Fuse holder

- Nylon heavy duty fuse holder for 1/4" x 1-1/4" glass fuses
- 30 amp maximum load
- 12 gauge lead wire
- Includes one 30 amp AGC fuse installed

Part No.	Description
091189	Heavy Duty In-Line Fuse holder with 30 Amp AGC Fuse

Heavy Duty ATC/ATO® In-Line Fuse holders

- Fit blade type fuses from 3 to 30 amps
- 12 gauge lead wire
- Part No. 091130 includes one 30 amp ATC fuse

Part No.	Description
091190	Heavy Duty ATC/ATO® In-Line Fuse holder without Fuse
091130	Heavy Duty ATC/ATO® In-Line Fuse holder with 30 Amp ATC Fuse

ATM/MINI® In-Line Fuse holder with Cover

- Fits ATM/MINI® blade type fuses from 2 to 30 amps
- 12 gauge lead wire
- Cover provides protection from harsh under-the-hood environmental elements
- Fuse sold separately

Part No.	Description
091426	ATM/MINI® In-Line Fuse holder with Cover

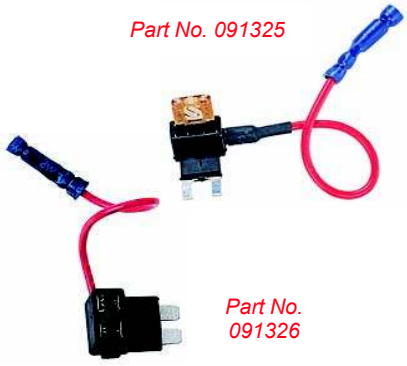
MAXI™ In-Line Fuse holder with Cover

- Fits MAXI blade type fuses from 20 to 60 amps
- 8 gauge lead wire
- Cover provides protection from harsh under-the-hood environmental elements
- Fuse sold separately

Part No.	Description
091425	MAXI In-Line Fuse holder with Cover

Add-A-Circuits

Part No. 091325



Part No. 091326

- Converts one circuit into two fuse protected circuits; plugs into fuse-block and accepts two fuses to provide protection for the existing circuit and the add-on circuit
- 10 amp maximum circuit load
- Fuse sold separately

Part No.	Description
091325	ATM/MINI® Add-A-Circuit
091326	ATC/ATO® Add-A-Circuit

Self-Stripping ATC/ATO® Fuse holder

- For use with ATC/ATO® blade type fuses up to 30 amps
- Easily attaches to wires ranging from 18 to 4 gauge
- Fuse sold separately

Part No.	Description
057003	Self-Stripping ATC/ATO® Fuse holder

In-Line Fuse holders (except MAXI) and Add-A-Circuits are display carded to fit on display rack shown on page 154

Fuse Kits

- Convenient, pre-packaged fuse assortments save time by keeping popular sized fuses close at hand
- Durable, see-through plastic cases with handy "locator" cards are easy to refill for using over and over
- Multi-functional kits can be displayed on the front counter to attract the impulse sale of single fuses or used as mini storage systems to save time and money by eliminating multiple trips to the shop for additional parts

Part No.	Description
091001	ATM/MINI® and MAXI fuse kit
091002	ATC/ATO®, AGC and ATM/MINI® fuse kit

Display assortment includes the following fuses:

ATM/MINI® and MAXI™ Fuse Kit

Part No.			
ATM/MINI®	MAXI™	Qty	Description
091300	—	10	2 Amp
091301	—	10	3 Amp
091303	—	10	5 Amp
091304	—	10	7-1/2 Amp
091305	—	10	10 Amp
091306	—	10	15 Amp
091307	—	10	20 Amp
091308	—	10	25 Amp
091309	—	10	30 Amp
—	**091400**	5	20 Amp
—	**091401**	5	30 Amp
—	**091402**	5	40 Amp
—	**091403**	5	50 Amp
—	**091404**	5	60 Amp
—	**091406**	5	80 Amp

ATC/ATO®, AGC and ATM/MINI® Fuse Kit

Part No.				
AGC	ATM	AGC	Qty	Description
091133	—	—	10	3 Amp
091135	—	—	10	5 Amp
091140	—	—	10	10 Amp
091141	—	—	10	15 Amp
091142	—	—	10	20 Amp
091144	—	—	10	30 Amp
—	**091303**	—	10	5 Amp
—	**091305**	—	10	10 Amp
—	**091306**	—	10	15 Amp
—	**091307**	—	10	20 Amp
—	**091308**	—	10	25 Amp
—	**091309**	—	10	30 Amp
—		**091175**	10	5 Amp
—		**091180**	10	10 Amp
—		**091181**	10	15 Amp
—		**091182**	10	20 Amp
—		**091183**	10	25 Amp
—		**091184**	10	30 Amp

DID YOU KNOW.....

Federal Motor Carrier Safety Regulation 393.95 requires every bus, truck, truck tractor and a drive-away tow-away operation to carry a replacement fuse for each kind and size in the vehicle?

Velvac offers a wide variety of terminals and connectors. For the same application the following terminals maybe available: crimp, crimp and seal, crimp/solder/seal, snap, or heatless connectors

Crimp Terminals and Connectors

- One-piece construction assures maximum electrical conductivity
- Electro bright, tin-plated annealed copper construction for maximum corrosion resistance
- Injection-molded insulation allows a funnel barrel construction for easy installation and ensures a consistent wall thickness for maximum reliability after crimping
- Crimp ridge on each terminal for positive location of crimp tool on terminal barrel - fewer mis-crimps
- Open end terminal design permits easy inspection of wire
- Designed to withstand temps of -40° to +221° F (+105° C)
- Heat-shrink tubing and electrical tape available and sold separately (see pages 97, 98 and 101)

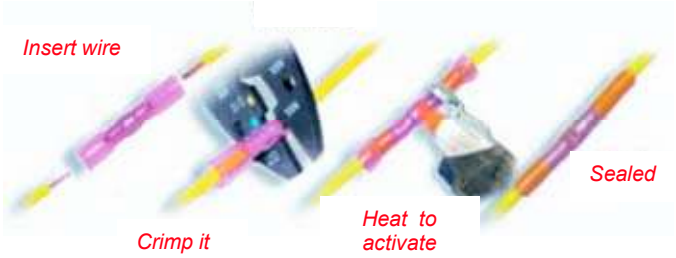
Crimp and Seal Terminals and Connectors

Simple three step installation reduces wiring time and costs ---

- Heat-shrink terminals combine color-coded, heat-shrink tubing with one-piece solderless terminals to produce fast, watertight, corrosion resistance wire connections
- UL approved
- Improved mechanical performance-provide improved pull-out strength and strain relief
- Designed to withstand temperatures of -67° F (-55° C) to +221° F (+150° C)
- Electrical tape and Heat gun available and sold separately (see pages 97, 98 and 101)
- Resist abrasion, scoring, cut-through and the effects of long term aging

Crimp/Solder/Seal Terminals and Connectors

- Pre-inserted solder terminals reduce installation time and increase efficiency, while achieving the benefits of both crimp terminals and solder terminals
- Each terminal contains solder for increased strength and conductivity
- Adhesive-lined heat shrink tubing seals out moisture and contaminants
- Wire gauge is printed on each connector for easy ID



Heatless Terminals and Connectors-Revolutionary New Product

- A heat-less, solder-less terminal utilizing a revolutionary anaerobic sealing technology requires **NO HEAT**
- Simply strip the wire and crimp, activating the sealant that reacts when the copper wire is inserted into the connector to create an environmentally sealed connection
- Easily installs in a fraction of the time of comparable heat seal connectors
- Prevents the ingress of moisture and air that can result in corrosion
- Nylon insulation provides maximum abrasion and puncture resistant while seamless
- Reduces overall installation costs by eliminating the need for torches or heat guns, reducing the installation time and improving productivity

STEP 1: **STRIP** copper wire

STEP 2: **INSERT** wire into sealing gel. Rotate to coat wire

STEP 3: **RE-INSERT** wire until insulation contacts connector. **CRIMP** connector

ELECTRICAL

BUTT CONNECTORS

Wire Gauge	Crimp Part No.	Crimp Insulation	Crimp/Seal Part No.	Crimp/Seal Insulation	Crimp/Solder/Seal Part No.	Crimp/Solder/Seal Insulation	Heatless Part No.	Heatless Insulation
22-18	**056051-50***	Vinyl-butted	**058312-50***	Heat shrink	**056144-25**	Heat shrink	**056111-5**	Nylon
22-18	**057085-50**	Nylon-smls**					**056111-100**	Nylon
16-14	**056052-50***	Vinyl-butted	**058313-40***	Heat shrink	**056145-25**	Heat shrink	**056112-5**	Nylon
16-14	**057086-50***	Nylon-smls**					**056112-100**	Nylon
12-10	**056053-50***	Vinyl-butted	**058314-40***	Heat shrink	**056146-25**	Heat shrink	**056113-5**	Nylon
12-10	**057087-50***	Nylon-smls**					**056113-100**	Nylon

22-18	**058362-50***	None
16-14	**058028-50***	None
12-10	**058029-50***	None

	Brazed Seam	
8	**056054-10**	Vinyl
6	**056055-10**	Vinyl
4	**056056-10**	Vinyl

HELPFUL HINT:

Terminal insulation is color-coded according to wire gauge specifications:

Red - **22 - 18 AWG, 8 AWG**
Blue - **16 - 14 AWG, 6 AWG**
Yellow - **12 - 10 AWG, 4 AWG**

SPADE CONNECTORS

Wire Gauge	Crimp Part No.	Crimp Stud Size, Insulation	Crimp Part No.	Crimp Stud Size, Insulation	Crimp/Seal Part No.	Crimp/Seal Stud Size	Crimp/Solder/Seal Part No.	Crimp/Solder/Seal Stud Size
Revised Part No.			Block Spade					
22-18	**056043-50**	8-10, Vinyl	**056046-50**	4-6, Vinyl	**058309-50**	8-10		
22-18			**058345-50**	6, Nylon			**056155-25**	10
16-14	**056044-50**	8-10, Vinyl	**056047-50***	4-6, Vinyl	**058335-50**	6		
16-14	**057082-50**	8-10, Nylon	**057084-50**	4-6, Nylon	**058310-50**	8-10	**056156-25**	10
16-14					**058336-50**	1/4"		
12-10	**056045-50**	8-10, Vinyl			**058311-50**	8-10	**056157-25**	10
12-10	**057083-50**	8-10, Nylon			**058337-50**	1/4"		

NOTE: *dash - "x" indicates package quantity*

** Clam shell with quantity of ten (10) also available by adding "-10" to the base six digit number.*

***Seamless*

RING TONGUE CONNECTORS

Wire Gauge	Crimp Part No.	Crimp Stud Size, Insulation	Crimp Part No.	Crimp Stud Size, Insulation	Crimp/Seal Part No.	Crimp/Seal Stud Size	Crimp/Solder/Seal Part No.	Crimp/Solder/Seal Stud Size
		Butted Seam		*Hooked Tongue-Butted*				
22-18	**056001-50**	4-6, Vinyl	—		**058334-50**	6	—	
22-18	**056002-50**	8-10, Vinyl	—		**058301-50**	8-10	**056147-25**	10
22-18	**056003-50**	12-1/4",Vinyl	—		—		—	
16-14	**056004-50**	4-6, Vinyl	**056049-50**	4-6, Vinyl	**058302-50**	4-6	—	
16-14	**057075-50**	4-6, Nylon	—		—		—	
16-14	**056005-50***	8-10,Vinyl	**056050-50**	8-10, Vinyl	**058303-50**	8-10	**056148-25**	10
16-14	**057076-50***	8-10,Nylon	—		—		—	
16-14	**056006-50***	12-1/4",Vinyl	—		**058304-50**	1/4"	**056149-25**	1/4"
16-14	**057077-50**	12-1/4",Nylon	—		—		—	
16-14	**056007-50***	5/16",3/8",Vinyl	—		**058305-50**	5/16", 3/8"	**056150-25**	3/8"
16-14	**057078-50**	5/16",3/8",Nylon	—		—		—	
12-10	**056008-50***	8-10,Vinyl	—		**058306-50**	8-10	**056151-25**	10
12-10	**057079-50**	8-10,Nylon	—		—		—	
12-10	**056009-50***	12-1/4",Vinyl	—		**058307-50**	1/4"	**056152-25**	1/4"
12-10	**057080-50**	12-1/4",Nylon	—		—		—	
12-10	**056010-50**	5/16",Vinyl	—		**058308-50**	5/16", 3/8"	**056153-25**	3/8"
12-10	**057081-50**	5/16",Nylon	—		—		—	
12-10	**056011-50***	3/8", Vinyl	—		—		**056154-25**	1/2"
12-10	**056012-50**	7/16",1/2",Vinyl	—		—		—	

		Brazed Seam
8	**058349-50**	8-10, Nylon
8	**058350-50**	12-1/4",Nylon
8	**058351-50**	5/16"-3/8", Nylon
8	**058352-50**	7/16"-1/2", Nylon
6	**058353-50**	12-1/4",Nylon
6	**058354-50**	5/16"-3/8", Nylon
6	**058355-50**	7/16"-1/2", Nylon
4	**058356-50**	12-1/4",Nylon
4	**058357-50**	5/16"-3/8", Nylon
4	**058358-50**	7/16"-1/2", Nylon

PIG TAILS

Part No.	Wire Gauge	Insulation
056184-50*	22 - 18	Nylon
056185-50*	16 - 14	Nylon
056186-50*	12 - 10	Nylon

WIRE NUTS

Part No.	Size	Color
058364-50	71B	Grey
058365-50	72B	Blue
058366-40	73B	Orange
058367-10	74B	Yellow

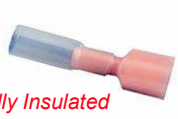
THREE AND FOUR WAY CONNECTORS

Wire Gauge	Four-Way- Butted Part No.	Four-Way- Butted Insulation	Three-Way- Butted Part No.	Three-Way- Butted Stud Size,	Self Strip Connector Part No.	Self Strip Connector Wire Gauge
22-18	**058346-10**	Vinyl	**058363-10**	Vinyl	**056093-50***	18-14
16-14	**056084-10**	Vinyl	**056082-10**	Vinyl	**056094-10**	12-10 Run, 18-14 Tap
12-10	—	—	**056083-10**	Vinyl	—	

NOTE: *dash- "x" indicates package quantity*

** Clam shell with quantity of ten (10) also available by adding "-10" to the base six digit number.*

MALE QUICK SLIDE TERMINALS AND CONNECTORS - TAB WIDTH .250"

Wire Gauge	Crimp Part No.	Crimp Insulation	Crimp Part No.	Crimp Insulation	Crimp/Seal Part No.	Crimp/Seal Insulation	Crimp/Solder/Seal Part No.	Crimp/Solder/Seal Insulation
		Butted Seam-fully Insulated		Butted Seam	 Fully Insulated		Fully Insulated	
22-18	**056069-50**	Nylon	**056063-50**	Vinyl	**058315-40**	Ht Shrink	**056169-25**	Vinyl
16-14	**056070-50**	Nylon	**056064-50***	Vinyl	**058316-40**	Ht Shrink	**056159-25**	Vinyl
16-14	—		**057090-50**	Nylon	—		—	
12-10	**056071-50**	Nylon	**056065-50***	Vinyl	**058317-10**	Ht Shrink	**056164-25**	Vinyl
12-10	—		**057091-50**	Nylon				
		Double Male to Female		*90° Flag Butted*				
	056088-50	None	**056086-50**	None				

FEMALE QUICK SLIDE TERMINALS AND CONNECTORS - TAB WIDTH .250"

Wire Gauge	Crimp Part No.	Crimp Insulation	Crimp Part No.	Crimp Insulation	Crimp/Seal Part No.	Crimp/Seal Insulation	Crimp/Solder/Seal Part No.	Crimp/Solder/Seal Insulation
		Butted Seam-fully Insulated	*T-tap Self Stripping*					*Fully insulated*
22-18	**056066-50**	Nylon	**058347-40**	Nylon	**058318-50**	Ht Shrink	**056165-25**	Ht Shrink
16-14	**056067-50***	Nylon	**057096-40**	Nylon	**058319-50**	Ht Shrink	**056166-25**	Ht Shrink
12-10	**056068-50***	Nylon	**058348-40**	Nylon	**058320-10**	Ht Shrink	**056167-25**	Ht Shrink
		Butted Seam						
22-18	**056060-50**	Vinyl					**056168-25**	Vinyl
16-14	**056061-50***	Vinyl	—				—	
16-14	**057088-50***	Nylon	—				**056158-25**	Vinyl
12-10	**056062-50***	Vinyl	—				**056160-25**	Vinyl
12-10	**057089-50**	Nylon	—					

SNAP TERMINALS AND CONNECTORS

Wire Gauge	Plugs-Butted Seam Part No.	Snap Dia, Insulation	Receptacles-Butted Part No.	Snap Dia, Insulation	Spades-Butted Part No.	Stud Size, Insulation	Receptacles-Double Part No.	Snap Dia, Insulation
22-18	**058338-50**	0.156", Nylon	**056076-50**	0.156", Nylon			**056080-50**	0.157", Vinyl
22-18	**058339-50**	0.180", Nylon	**058360-50**	0.180", Nylon				
16-14	**058340-50***	0.156", Nylon	**056078-50**	0.156", Nylon	**057092-50**	8, Vinyl		
16-14	**058341-50**	0.180", Nylon	**056079-50**	0.180", Nylon	**057093-50**	10, Vinyl		

NOTE: *dash- "x" indicates package quantity*

** Clam shell with quantity of ten (10) also available by adding "-10" to the base six digit number.*

Terminal Kits

- Convenient, pre-packaged terminal assortments
- Durable, see-through plastic cases with handy "locator" cards are easy to identify and refill
- Multi-functional kits can be displayed on the front counter to attract the impulse sale of single terminals or used as mini storage system

Part No.	Description
056107	Solderless Terminal Kit
056108	Heat-Shrink Terminal Kit
056109	Electrical Connector Kit

Electrical Connector Kit
Part No. 056109 Total Pieces 170

Part No.	Description	Pieces
056051	22-18 ga. Butt Conn	12
056052	16-14 ga. Butt Conn	12
056053	12-10 ga. Butt Conn	12
021007	3/8" tube O.D. clip	6
056091	22-14 ga. Pigtail	15
056093	18-14 Tap	10
056002	22-18 Ring Tongue	12
056005	16-14 Ring Tongue	12
056008	12-10 Ring Tongue	12
021009	1/2" tube O.D. tube clip	6
056092	18-10 ga. Pigtail	15
056094	12-10 run 18-14 tap	10
056043	22-18 Spade	12
056044	16-14 ga. Spade	12
056045	12-10 ga. Spade	12

Heat Shrink Terminal Kit
Part No. 056108 Total Pieces 132

Part No.	Description	Pieces
058312	22-18 ga. Butt Conn	8
058313	16-14 ga. Butt Conn	8
058314	12-10 ga. Butt Conn	8
058309	22-18 ga. Spade	8
058310	16-14 ga. Spade	8
058311	12-10 ga. Spade	8
058302	16-14 ga. Ring Tongue	8
058303	16-14 ga. Ring Tongue	8
058304	16-14 ga. Ring Tongue	8
058305	16-14 ga. Ring Tongue	8
058306	12-10 ga. Ring Tongue	8
058308	12-10 ga. Ring Tongue	8
058315	22-18 ga. M. Quick Slide	6
058316	16-14 ga. M. Quick Slide	6
058317	12-10 ga. M. Quick Slide	6
058318	22-18 ga. F. Quick Slide	12
058319	16-14 ga. F. Quick Slide	6
058320	12-10 ga. F. Quick Slide	6

Solderless Terminal Kit
Part No. 056107 Total Pieces 195

Part No.	Description	Pieces
057085	22-18 ga. Butt Conn	12
057086	16-14 ga. Butt Conn	12
057087	12-10 ga. Butt Conn	12
056002	22-18 ga. Ring Tongue	12
056005	16-14 ga. Ring Tongue	12
056011	12-10 ga. Ring Tongue	12
056043	22-18 ga. Spade Tubing	12
056044	16-14 ga. Spade	12
056045	12-10 ga. Spade	12
057061	16-14 ga. Shrink Tubing	5
057062	12-10 ga. Shrink Tubing	5
057149	22-18 ga. Shrink Tubing	5
056061	16-14 ga. F. Quick	12
056062	12-10 ga. F Quick	12
056064	16-14 ga. M. Quick	12
056065	12-10 ga. M. Quick	12
058340	16-14 ga. Snap Plug	12
056078	16-14 ga. Snap Plug	12

Solderless Terminal Fleet Maintenance Kit

- Packaged in a heavy-duty steel box with 20 popular styles of solderless terminals and nylon tie straps

Part No.	Description
056096	Kit with Crimping Tool
056097	Kit without Crimping Tool

Part No.	Qty	Part No.	Qty
056002	20	056044	20
056004	20	056047	20
056005	20	058340	20
056006	20	056078	20
056061	20	056093	20
056064	20	056050	20
056067	20	056051	20
056070	20	056052	20
056009	20	056053	20
056011	20	056186	20
090014	20		

Terminals also sold separately on pages 91 - 93
Tie straps sold separately on page 98
Crimping tool sold separately on page 100

General Purpose Primary Wire

- Soft annealed copper strands
- PVC outer jacket
- Designed to withstand temperatures up to +250° F
- Wire meets SAE J1128 Type GPT requirements

Part No.	Gauge	Spool Size	Color
051101	18	100'	Black
051103	18	100'	Red
051105	18	100'	White
051117-6	16	1000'	Black
051121-6	16	1000'	Red
051123-6	16	1000'	White
051119-6	16	1000'	Green
051117	16	100'	Black
051121	16	100'	Red
051123	16	100'	White
051125	16	100'	Yellow
051127	16	100'	Blue
051129	16	100'	Brown
051119	16	100'	Green
051135-6	14	1000'	Black
051139-6	14	1000'	Red
051141-6	14	1000'	White
051143-6	14	1000'	Yellow
051145-6	14	1000'	Blue
051147-6	14	1000'	Brown
051137-6	14	1000'	Green
051135	14	100'	Black
051139	14	100'	Red
051141	14	100'	White

Part No.	Gauge	Spool Size	Color
051143	14	100'	Yellow
051145	14	100'	Blue
051147	14	100'	Brown
051137	14	100'	Green
051157-7	12	500'	Red
051159-7	12	500'	White
051161-7	12	500'	Yellow
051163-7	12	500'	Blue
051155-7	12	500'	Green
051153	12	100'	Black
051157	12	100'	Red
051159	12	100'	White
051161	12	100'	Yellow
051163	12	100'	Blue
051165	12	100'	Brown
051155	12	100'	Green
051175-7	10	500'	Black
051171-7	10	500'	Red
051177-7	10	500'	White
051175	10	100'	Black
051171	10	100'	Red
051177	10	100'	White
051173	10	100'	Blue

Primary Wire Rack

- Holds (12) 100' spools, (8) 100' and (2) 10000' spools or (4) 1000' spools
- Heavy gauge plated steel construction
- Wire spools sold separately

Part No.	Description
691015	Primary Wire Rack

Gray Jacketed Parallel Wire

Part No.			
16 Gauge Black-White	14 Gauge Black-White	12 Gauge Black-White	Spool Size
051050	**051058**	**051066**	100'
051050-7	**051058-7**	**—**	500'

Three-Way and Four-Way Bonded Parallel Wire*

Part No.				
16 Gauge	14 Gauge	Conductor	Wire Color	Spool Size
051052	**051060**	Three	Brown-Green-Yellow	100'
051054	**051062**	Four	Brown-Green Yellow-White	100'

NOTE: *See page 75 for ATA color code description*

**Round wire glued together*

SPLIT LOOM

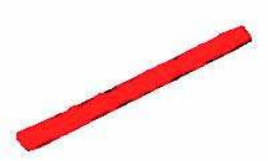
Convoluted Split Loom

- High temperature loom suitable for engine compartment use
- Split seam permits easy insertion and repair or wire, tubing, cable, etc.
- Convoluted black nylon allows for excellent pinch and abrasion resistance
- Designed to withstand temperatures from -40° to +200° F
- Meets FMVSS 302 requirements

Part No.		Loom
100' Coil	250' Coil	I.D.
020104-7	**020104**	1/4"
020106-7	**020106**	3/8"
020108-7	**020108**	1/2"
020110-7	**020110**	5/8"
020112-7	**020112**	3/4"
020116-7	**—**	1"
020117-7	**—**	1-1/4"
020118-7	**—**	1-1/2"
020119-7	**—**	1-7/8"

Heavy Wall Heat-Shrink Tubing With Liner

- Durable polyolefin construction
- Inner liner melts to produce a flexible, waterproof seal for the life of the connection
- UL Listed/CSA certified in direct buried applications
- Flame retardant
- 3:1 shrink ratio
- See page 121 for heat gun-recommended heat range is 250º F (120º) to 485º (250ºC)



Part No.	Wire Gauge Range	Length	I.D. Pre-Shrink	I.D. After
057147-10	18-14	6"	.300"	.100"
057158-10	14-6	6"	.400"	.150"
057073-10	8-1	6"	.750"	.220"
057151-25	8-1	1-1/2"	.750"	.220"
057153-2	8-1	48"	.750"	.220"
057074-10	2-4/0	6"	1.100"	.375"
057098-25	2-4/0	1-1/2"	1.100"	.375"
057174-2	2-4/0	48"	1.100"	.375"

Part No.	Wire Gauge Range	Length	I.D. Pre-Shrink	I.D. After
057146-10	18-14	6"	.300"	.100"
057148-5	18-14	48"	.300"	.100"
057058-10	14-6	6"	.400"	.150"
057159-5	14-6	48"	.400"	.150"
057059-10	8-1	6"	.750"	.200"
057150-25	8-1	1-1/2"	.750"	.200"
057152-2	2-4/0	48"	.750"	.200"
057060-10	2-4/0	6"	1.100"	.375"
057097-25	2-4/0	1-1/2"	1.100"	.375"
057160-2	2-4/0	48"	1.100"	.375"

NOTE: *dash "-x" indicates package quantity*

Thin Wall Heat-Shrink Tubing Without Liner

- Durable polyolefin construction
- UL recognized and flame retardant
- Continuous operating temperature: -67º F (-55º C) to 275º F (135º C)
- Recommended heat range is 250º F (120º C) to 485º F (250º C)
- 2:1 shrink ration

Part No.	Wire Gauge Range	Length	Color	I.D. Pre-Shrink	I.D. After
057061-25	16-14	2"	Blue	.250"	.125"
057062-25	12-10	2"	Yellow	.375"	.187"
057149-25	22-18	6"	Red	.125"	.062"
057112-10	—	6"	Black	.190"	.093"
057113-10	—	6"	White	.250"	.125"
057114-10	—	6"	Red	.375"	.187"
057115-10	—	6"	Black	.500"	.250"
057116-10	—	6"	White	.750"	.370"
057117-10	—	6"	Red	1.00"	.500"

NOTE: *dash "-x" indicates package quantity*

Thin Wall Heat-Shrink Tubing

- Disk packaging for convenient storage and waste reduction
- Packaged for showroom display and impulse buying
- Available in three colors corresponding to NEMA color-code standards
- Convenient packaging easily fits in toolbox

Packaged in 8' rolls - one roll per disk pack

Part No.	Description
057131	3/16" ID, Red
057132	1/4" ID, Blue
057133	5/16" ID, Yellow

Heat-Shrink Tubing Kits

Part No. 057110

- Convenient, pre-packaged tubing assortments save time by keeping popular sized tubing in 6" lengths close at hand
- Durable, see-through plastic cases with handy "locator" cards are easy to refill for using over and over

Part No.	Description
057110	Heavy Wall Heat-Shrink Tubing Kit
057111	Thin Wall Heat-Shrink Tubing Kit

Heavy Wall Heat-Shrink Tubing Kit
Part No. 057110 Total Pieces 36

Part No.	Pieces	Description
057060	4 pcs	1.10" Black
057059	4 pcs	.750" Black
057058	10 pcs	.400" Black
057074	4 pcs	1.10" Red
057073	4 pcs	.750" Red
057158	10 pcs	.400" Red

Part No. 057111

Thin Wall Heat-Shrink Tubing Kit
Part No. 057111 Total Pieces 86

Part No.	Pieces	Description
057112	36 pcs	3/16" Black
057113	24 pcs	1/4" White
057114	12 pcs	3/8" Red
057115	6 pcs	1/2" Black
057116	4 pcs	3/4" White
057117	4 pcs	1" Red

TIE STRAPS, GROMMETS AND WIRE CLIPS

Cable Tie Straps

Part Nos. 090002, 090064

Part Nos. 090004, 090067

Part Nos. 090006, 090070

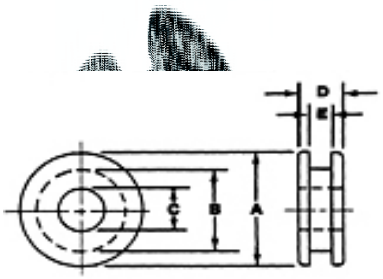
Part Nos. 090010, 090071

Part Nos. 090014, 090066
Part Nos. 090016, 090068
Part Nos. 090030, 090029

Part No. Standard Tie Strap	Part No. Black UV Tie Strap	Length	Minimum Diameter	Maximum Diameter	Minimum Tensile Strength	Stud Size
090002-100	**090064-100**	5"	1/16"	1-1/4"	30 lbs.	—
090004-100	**090067-100**	7"	1/16"	1-3/4"	50lbs.	10
090006-25	**090070-25**	14"	3/16"	4"	120 lbs.	—
090010-25	**090071-25**	14"	3/16"	4"	120 lbs.	14
090014-100	**090066-100**	7"	1/16"	1-3/4"	50 lbs.	—
090016-100	**090068-100**	14"	1/16"	4"	50 lbs.	—
	090030-50	24"			175 lbs.	
	090029-50	36"			175 lbs.	

NOTE: *dash "-xxx" indicates package quantity*

Rubber Grommets



Part No.	A	B	C	D	E
021059	9/16"	7/16"	5/16"	3/16"	1/16"
021061	1-3/8"	1"	1/2"	1/2"	1/8"
021063	1-1/4"	31/32"	5/8"	3/8"	1/8"
021065	1-3/4"	1-3/16"	3/4"	1/2"	7/32"

Nylon Grommet

- Provides protection for 16, 14 and 12 gauge wires
- Fits into a 3/8" diameter mounting hole with wall thickness up to 1/8"

Part No.	Description
021070	Nylon Grommet

Tube Clips

- Zinc-plated steel construction for corrosion resistance
- Rubber coating protects tubing and wires

Part No.	Tube O.D.	Mounting Bolt Size
021001	3/16"	1/4"
021003	1/4"	1/4"
021005	5/16"	1/4"
021007	3/8"	1/4"
021009	1/2"	1/4"
021011	5/8"	1/4"
021013	3/4"	3/8"
021015	7/8"	1/4"
021017	1"	1/4"
021019	1-1/4"	5/16"

Wire Clips

- Spring tension clips are ideal for holding primary wire to truck frame
- Tips are vinyl coated for wire protection

Part No.	Description
021021	1/4" Wire Clip
021023	1/2" Wire Clip

Rubber Cushioned Clamps

Clamping Diameter	Part No. 3/8" Mounting Screw - 5/8" Wide	Part No. 1/4" Mounting Screw - 1/2" Wide
1/4"	**021102**	**021114**
3/8"	**021103**	**021115**
1/2"	**021104**	**021116**
5/8"	**021100**	**021117**
3/4"	**021105**	**021118**
1"	**021106**	**021119**
1-1/4"	**021107**	
1-1/2"	**021108**	
2"	**021109**	
2-1/2"	**021110**	
3"	**021111**	
4"	**021112**	
5"	**021113**	

Work Lights

- Incandescent light includes grounded metal swing-open bulb guard and 25' 16/3 outdoor all-weather power cord (cord remains flexible in sub-zero temperatures to -20˚)
- On/Off switch, grounded three prong outlet and 13 amp resettable circuit breaker built into handle
- Metal hanging hook
- For use with up to 75 watt standard incandescent bulb (not included)

Part No.	Description
057123	Work light

Deluxe Crimping Tool

- Crimps terminals ranging in size from 26 to 6 gauge
- Five popular sized bolt cutting stations cleanly cut mild steel and nonferrous material

Part No.	Description
058026	Deluxe Crimping Tool

Economy Crimping Tool

- Accepts 8 through 4/0 gauge terminals, connectors, lugs
- Hammer required for operation

Part No.	Description
058030	Economy Crimping Tool

Short Tube Work Light 13 Watt

- Fluorescent light features new ergonomic handle, shatter resistant housing and 25' 16/3 attached cord
- Ballast, on/off switch and three prong tool outlet built into bottom end of handle
- Handle accepts 360˚ adjustable magnet mounting clip allowing lamp to adhere to metal surface
- Shatter resistant polycarbonate lens with 270˚ arc of light
- 360˚ adjustable swivel hanging hook
- No tools, easy bulb replacement - cool and energy efficient
- Includes 13 watt fluorescent twin tube

Part No.	Description
057125	Light - 13 Watt

Heavy-Duty Crimping Tool

- For crimp-type terminals from 6 to 4/0 gauge
- Rotating, letter-coded crimping die
- Reference guides on handles for proper die settings

Part No.	Description
058171	Heavy-Duty Crimping Tool
058172	Replacement Left Jaw
058173	Replacement Right Jaw

Long Tube Work Light 15 Watt

- Fluorescent light features shatter resistant lamp housing an 25' 18/2 attached power cord
- On/Off switch built into handle
- Plug-in ballast built into power cord plug
- Non-glare reflector
- 360˚ adjustable swivel hanging hook

Part No.	Description
057124	Light - 15 Watt

Copper Cable Cutter

- Capable of cutting up to 1" diameter copper stranded electrical cable
- 13" long steel handles with vinyl hand grips

Part No.	Description
057072	Copper Cable Cutter

Compact Cable Cutter

- Designed to cut copper wire and cable up to 4/0 gauge

Part No.	Description
057071	Compact Cable Cutter

Heat Gun

- Produces temperatures from 750º to 1100º F
- Built-in circuit breaker and three position switch (hot / off / fan only)

Part No.	Description
058160	Heat Gun

Triple Outlet All-Weather Extension Cord

- 50' 12/3 high visibility yellow cord rated at 15 amps, 125 VDC
- Heavy duty power block at female end with resettable 15 amp circuit breaker and three grounded outlets

Part No.	Description
057128	50' Extension Cord

General Purpose Vinyl Electrical Tape

- Rated to 176˚F (80˚C)
- Meets UL510 requirements for UV resistance
- UL listed 539H and meets Canadian Standards Association LR48769

Part No.	Tape Thickness	Tape Roll Size
058382	7 mil	3/4" x 60'

25' Cord Reel

- Retractable 25' 16/3 cord rated at 10 amps, 125 VDC
- Housing constructed of high impact plastic with built-in grounded outlets (4), 10 amp resettable circuit breaker and a convenient wind-up knob
- When completely wound, reel fits easily into tool box or drawer
- Carrying handle attached for convenient portability

Part No.	Description
057126	25' Cord Reel

50' Cord Reel

- Retractable 50' 14/3 yellow cord rated at 13 amps, 125 VDC to -40˚ Heavy duty cord includes heavy duty power block with built-in resettable 13 amp circuit breaker and three grounded outlets
- Industrial/Commercial grade, auto ratcheting plastic alloy reel housing built-in carrying handle
- Includes quick release wall/ceiling mounting bracket for portability
- All hardware and instructions are included

Part No.	Description
057127	50' Cord Reel

Silicon Self-Fusing Tape

- Tape self fuses and cures in 24 hrs. to form a permanent moisture tight seal
- Has no adhesive lining leaving the application clean with no sticky residue
- Provides high tech alternative to heat shrik tubing
- Ideal for high temperature applications such as battery terminals
- High dielectric strength
- Temperature range from -85^0 to +500^0 F
- Packaged in clamshell, 1" wide, 20' long rolls (qty 1 per clamshell)

Part No.	Color	Description
058380*	Black	Self-Fusing Tape
058381*	Red	Self-Fusing Tape

**Add -4 to the part number for 10 piece bucket display on page 151.*

ELECTRICAL

Back-up Alarms 103-105

Velvac offers a complete line of back-up alarms, warning devices and switches to meet the needs of almost every vehicle application and work environment. From our heavy duty OEM style alarms with patented double reflex horn, to our broad line of speaker alarms, we have the right alarm to meet your needs and price targets.

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NEW — Indicates a new product added to catalog

VELVAC Original — Indicates an original Velvac® product

Revised Part No. — Indicates a revised part number

For quantity and packaging information, refer to our price list.

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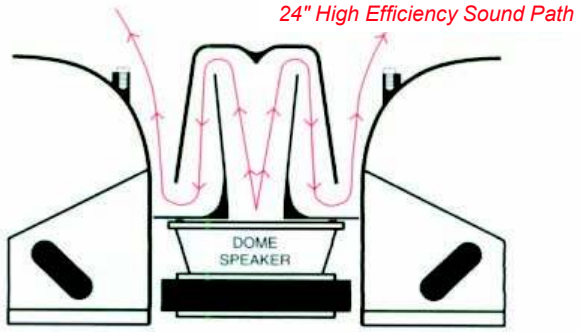
VELVAC® In the Passing Lane Since 1934

Velvac offers a complete line of back-up alarms, warning devices and switches to meet the needs of almost every application and work environment. From our heavy duty OEM style alarms with patented double reflex horn, to our broad line of speaker alarms, we have the right alarm to meet your needs and price targets.

Double Reflex Horn Style Back-up Alarms

Part Nos. 697002 and 697007

Part Nos. 697017, 697032, 697104, 697105 and 697106



- Features patented double reflex horn speaker providing efficient, high output sound, with less power consumption and reduced heat for greater reliability and performance. 24" long folder horn allows alarm to run cooler by using about 1/2 the power consumption of conventional speaker alarms to achieve the same decibel output.
- High impact glass filled nylon housing meets high temperature demands of SAE J994 and UL requirements for flame testing. Provides durability needed for the toughest work and vehicle environments.
- HD OEM style alarms incorporate a self-cleaning feature that "pumps" out contaminates from the sound chamber for increased reliability and an anti-tamper grill to help protect the alarm from damage
- 12-24 V dc - polarity and peak voltage protection, temperature range -40 º to +85º C
- Slotted mounting centers with optional back or bottom mounting for easy installation
- Meets requirements of SAE J944, CE, e-Mark and UL, OSHA, MSHA, IP67
- 10 year warranty

Part No.	Decibels	Rated Current mAmps(mA)	Connection Type	Mounting Bracket Type	Mounting Center	ECCO EQUIV	PRECO EQUIV
HD OEM							
697017	107	500	Wire	Metal	7"	787/872	360
697032	112	500	Wire	Metal	7"	876	110
697105	87-112*	300	Wire	Metal	7"	SA920	6010
697106	87-112*	300	Wire	Metal	6"	SA917	1040
697104	82-107*	300	Wire	Integrated Nylon	4"	SA901	1048
HD STANDARD							
697002	102	300	Wire	Integrated Nylon	3.25"	575	270
697007	107	300	Wire	Integrated Nylon	3.25"	575	270

** Self-adjusting alarm features a true, high sensitivity microphone to sense ambient noise levels around the alarm and automatically adjust the sound output to be 10 decibels above ambient*

Heavy Duty External Switch

For use on vehicles that do not have back-up lights readily available

- Equiv: Preco SW30

Part No.	Voltage	Amp
697012	12-80V	10

External Switch

Part No.	Description
697011	External Switch

- Switch will cause alarm to activate when linkage is shifted into reverse
- Operating temperatures of -40^0 to +140º F
- 12-24 VDC
- **Not** for underwater use

Speaker Style Back-up Alarms

- High impact glass filled nylon housing meets high temperature demands of SAE J994 and UL requirements for flame testing. Provides durability needed for even tough work and vehicle environments
- Epoxy encapsulation protects electronics against moisture allowing steam cleaning or pressure washing. Thin coat epoxy process helps dissipate heat faster keeping the alarm cooler for longer product life.
- Manufactured with a polyethylimide (PEI) speaker cone for durability and performance
- 12-24 V dc- polarity and peak voltage protection
- Temperature range -40° to +85° C
- 3.25" slotted mounting centers with optional back or bottom mounting for easy installation
- Meets requirements of SAE J944, CE, e-Mark and UL, OSHA, MSHA, IP67
- 3 year warranty

Part Nos. 697287 & 697297

Part Nos. 699287 & 699297

Part No.	Decibels	Rated Current mAmps(mA)	Connection Type	ECCO EQUIV	PRECO EQUIV
697287	87	100	Wire	—	—
697297	97	500	Wire	—	—
699287	87	500	Terminal	505	220/240
699297	97	500	Terminal	510/520	230/240
697103	82-102*	200	Wire	SA950	1020

**Self adjusting alarm features a true high sensitivity microphone to sense ambient noise levels around the alarm and automatically adjusts the sound output to be 10 decibels above ambient*

Part No. 697103

Speaker Style Back-up Alarms

- High impact glass filled nylon housing meets high temperature demands of SAE J994 and provides durability needed for even tough work and vehicle environments.
- Epoxy encapsulation protects electronics against moisture allowing steam cleaning or pressure washing.
- Ground strap included on 699 Series terminal alarms - Two 9" x 16 gauge wires included on 697 series alarms 12 - 24 V dc - polarity and peak voltage protection.
- Temperature range -40° to +85° C
- Slotted mounting centers with optional back or bottom mounting for easy installation - dimensions in table below
- Meets SAE J944 requirements
- 1 year warranty

Part Nos. 697087, 697097 and 697107

Part Nos. 699087. 699097 and 699107

Part No.	Decibels	Rated Current mAmps(mA)	Connection Type	Mounting Centers	ECCO EQUIV	PRECO EQUIV
699087	87	200 - 300	Terminal	3.25	505	220/ELT 278
699097	97	200 - 300	Terminal	3.25	510/520	230/230LV/240
699107	107	200 - 300	Terminal	3.25	—	250
699112	112	200 - 300	Terminal	—	—	—
697087	87	100 - 200	Wire	3.25	—	—
697097	97	100 - 200	Wire	3.25	—	240C5
697107	107	400 - 500	Wire	3.25	575	270
697112	112	400 - 500	Wire	4.12	—	—
697066	87-112	400 - 500	Wire	4.12	SA901	1020

*Self adjusting

Part No. 699112

Part Nos. 697066 and 697112

Flush Mount Back-Up Alarms

Flush mount alarms allow for fast and convenient mounting into either 1.75" or 4" diameter holes in the vehicle body.

Part Nos. 697187 and 697197

- High impact glass filled nylon housing meets high temperature demands of SAE J994 requirements and provides durability needed for even tough work vehicle environments
- 12 - 24 V dc operation, temperature range -40º to +85º C
- 697124 and 697125 alarms are designed to mount flush into standard 4" hole on vehicle body. These alarms include rubber mounting boot and wire harness with mating connectors
- 697187 and 697197 features a compact design for mounting into 1/75" hole in vehicle body - overall unit depth is 1.28"
- Meets SAE J944 requirements

Part Nos. 697124 and 697125

Part No.	Decibels	Rated Current mAmps(mA)	Connection Type	Hole Diameter	ECCO EQUIV	PRECO EQUIV
697187	87	250	Wire	1.75"	—	—
697197	97	250	Wire	1.75"	—	—
697124	97	200 - 400	Wire Harness with Connector	4"	410/415	4030
697125	107	200 - 400	Wire Harness with Connector	4"	435	4050

Warning Devices

These warning devices are perfect for non back-up alarm applications such as warning of auxiliary equipment movement - ladder, boom, door or outrigger activation.

Part No. 698055

- Yellow colored nylon housings clearly identify these as warning devices
- 698055 alarm features manual adjusted volume control allowing the alarm to be set between 78 - 102 decibels
- 12 - 24 V dc operation - ground strap included on 696 series devices - 698055 includes two recessed back side terminals.
- Slotted mounting centers with optional back or bottom mounting for easy installation on 696 series devices - 698055 features four mounting holes on 4.18" diameter

Part Nos. 696087, 696097 and 696107

Part No.	Decibels	Rated Current mAmps(mA)	Connection Type	Mounting Centers	ECCO EQUIV	PRECO EQUIV
696087	87	90 - 400	Terminal	3.25"	—	—
696097	97	150 - 400	Terminal	3.25"	DT500	D5232
696107	107	150 - 500	Terminal	3.25"	—	—
Manual Adjust						
698055	78-102	300 - 400	Terminal	(4) Holes/ 4.18" Dia.	—	—

NOTE: *Warning devices do not meet SAE requirements and should not be used in place of a back-up alarm.*

Fittings 107-123

Velvac offers one of the most comprehensive fitting lines in the industry. From push-lock fittings with an engineered tube retention system and seal design for superior holding and side-load retention capabilities, to more traditional brass male and female fittings, Velvac has you covered.

Plus, check out our full line of T-bolt, Constant-Torque®, Saddle and Hi-Torque® clamps, specially designed to handle the rigors of commercial vehicle life.

- **Corrosion resistant**
- **Heavy gauge to exceed SAE torque requirements**
- **Extended diameter range**

NEW — Indicates a new product added to catalog

VELVAC Original — Indicates an original Velvac® product

Revised Part No. — Indicates a revised part number

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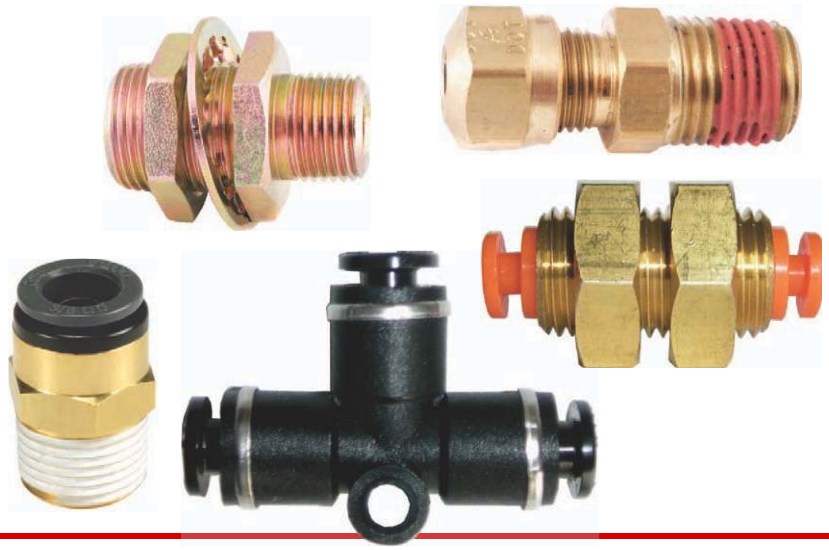

For quantity and packaging information, refer to our price list.

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NOTE: The information and photographs in this catalog are believed to be accurate and factual as of the print date. Velvac assumes no responsibility for information that may be incorrect or has changed since press time. Product specifications and offerings subject to change without notice.

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VELVAC® In the Passing Lane Since 1934

- Designed for use with SAE J844 nylon tubing (see page 44)
- **DOT 49CFR 571.106 compliant** High strength composite fittings offer weight savings over all brass style fittings-currently being used by many OE vehicle manufacturers
- Fittings meet performance requirements as stated in SAE J1131*
- Operating temperatures from -45˚ F to +140˚ F
- Maximum operating pressure 145 psi
- Elbows and male branch fittings with built-in swivel for positioning
- Engineered tube retention system and seal design for superior holding and side load retention capabilities
- Positive release bushing for easy insertion and removal of tubing
- Thread sealant applied to all male pipe threads to reduce installation time and expense

WARNING

Velvac's line of push-lock brake fittings and tubing are designed only for use in vehicles where air is utilized as the operating fluid. As such, Velvac's push-lock air brake fittings should only be used in a manner consistent with the manufacturer's specifications.

Using Velvac's push-lock fittings or tubing improperly or in a manner inconsistent with the manufacturer's specifications may result in serious injury or property damage. For example, Velvac's push-lock fittings and tubing are not intended for use in environments exceeding 145 psi and temperatures between -45º and +140^0 F. Velvac push-lock fittings and tubing are intended for use only as defined in 49CFR571.106.

Further, the U.S. Department of Transportation prohibits the use of push-lock fittings and nylon tubing as a connection between (I) a semi-tractor & trailer, or (II) a drive shaft and chassis.

NOTE: 1/8" push-lock fittings DO NOT meet DOT or SAE specifications for air brake applications.

45˚ Male Swivel Elbows

(Sealant Applied)

- Composite body with brass pipe fitting end

Part No.	Tube Size	Pipe Size
016412*	1/8"	1/8"
016442	1/4"	1/8"
016444	1/4"	1/4"
016446	1/4"	3/8"
016464	3/8"	1/4"
016466	3/8"	3/8"
016486	1/2"	3/8"
016947	3/8"	1/2"
016950	1/2"	1/2"

Full Unions

- Composite body

Part No.	Tube Size
016610*	1/8"
016620	5/32"
016630*	3/16"
016640	1/4"
016660	3/8"
016680	1/2"
016670	5/8"

90˚ Male Swivel Elbows

(Sealant Applied)

- Composite body with brass pipe fitting end

Part No.	Tube Size	Pipe Size
016212	1/8"*	1/8"
016214	1/8"*	1/4"
016222	5/32"	1/8"
016224	5/32"*	1/4"
016242	1/4"	1/8"
016244	1/4"	1/4"
016246	1/4"	3/8"
016262	3/8"	1/8"
016264	3/8"	1/4"
016266	3/8"	3/8"
016268	3/8"	1/2"
016284	1/2"	1/4"
016286	1/2"	3/8"
016288	1/2"	1/2"
016276	3/4"	1/2"
016277	3/4"	3/4"
016278	5/8"	3/4"
016279	5/8"	3/8"
016281	5/8"	1/2"

Bulkhead Unions

- Brass Construction

Part No.	Tube Size
016810*	1/8"
016840	1/4"
016860	3/8"
016880	1/2"

** Indicates parts that do not meet DOT or SAE specification for air brake applications*

FITTINGS

Union "Y"

- Composite body

Part No.	Description
016289	1/4 x 1/4 x 1/4
016291	1/4 x 1/4 x 3/8
016290	3/8 x 3/8 x 3/8

Union Tees

- Composite body

Part No.	Tube Size
016910*	1/8"
016920	5/32"
016930	3/16"
016940	1/4"
016960	3/8"
016980	1/2"
016985	1/2 x 1/2 x 3/8

Male Run Tee

Part No.	Tube Size	Pipe Size
016400	1/4"	1/8"
016401	1/4"	1/4"
016402	3/8"	1/4"
016403	3/8"	3/8"
016404	3/8"	1/2"
016405	1/2"	3/8"
016406	1/2"	1/2"
016407	5/8"	1/2"
016409	1/4"	3/8"

Female Bulkhead Connector

Part No.	Tube Size	Thread Size
016812	1/4"	1/4"
016813	3/8"	1/4"

Male Connectors *(Sealant Applied)*

- Brass Construction

Part No.	Tube Size	Pipe Size
016110*	1/8"	1/16"
016112*	1/8"	1/8"
016114*	1/8"	1/4"
016120	5/32"	1/16"
016122	5/32"	1/8"
016124	5/32"	1/4"
016142	1/4"	1/8"
016144	1/4"	1/4"
016146	1/4"	3/8"
016162	3/8"	1/8"
016164	3/8"	1/4"
016166	3/8"	3/8"
016168	3/8"	1/2"
016184	1/2"	1/4"
016186	1/2"	3/8"
016188	1/2"	1/2"
016951	3/4"	1/2"
016161	3/4"	3/4"
016163	5/8"	3/8"
016189	5/8"	1/2"
016187	3/4"	3/8"

*Except 1/8" fittings and 90° male elbow Part No. 016224 which do not meet DOT or SAE specifications for air brake applications

Female Elbow

Part No.	Tube Size	Thread Size
016247	1/4"	1/8"
016248	1/4"	1/4"
016249	3/8"	1/4"

Union 90˚ Elbow

Part No.	Tube Size
016282	5/32"
016283	1/4"
016285	3/8"
016287	1/2"

- Composite body

Male Branch Swivel Tees

(Sealant Applied)

- Composite body with brass pipe fitting end

Part No.	Tube Size	Pipe Size
016312*	1/8"	1/8"
016314*	1/8"	1/4"
016342	1/4"	1/8"
016344	1/4"	1/4"
016364	3/8"	1/4"
016366	3/8"	3/8"
016368	3/8"	1/2"
016386	1/2"	3/8"
016388	1/2"	1/2"
016408	5/8"	1/2"

** Indicates parts that do not meet DOT or SAE specification for air brake applications*

FITTINGS

- Designed for use with nylon air brake tubing (see page 44)
- **DOT compliant.** Fittings meet SAE J246 requirements
- Brass construction with internal stainless steel tube supports
- Pipe thread sealant featured on several fitting styles. This pre-applied sealant offers several benefits
  - Provides no-leak assembly instantly. Saves application time and expense
  - Will not contaminate systems like tape shredding or liquid sealant washout
  - Can be reused up to five times
  - Provides excellent thread

45˚ Elbows *(Sealant Applied)*

Part No.	Tube Size	Pipe Size
017842	1/4"	1/8"
017844	1/4"	1/4"
017862	3/8"	1/8"
017864	3/8"	1/4"
017866	3/8"	3/8"
017868	3/8"	1/2"
017886	1/2"	3/8"
017888	1/2"	1/2"
017816	5/8"	3/8"
017808	5/8"	1/2"

Tee Thread Branches

(Sealant Applied)

Part No.	Tube Size	Pipe Size
017242	1/4"	1/8"
017244	1/4"	1/4"
017262	3/8"	1/8"
017264	3/8"	1/4"
017266	3/8"	3/8"
017286	1/2"	3/8"
017288	1/2"	1/2"
017218	5/8"	1/2"

Female Elbows

Part No.	Tube Size	Pipe Size
017043	1/4"	1/8"
017046	1/4"	1/4"
017060	3/8"	1/8"
017064	3/8"	1/4"
017066	3/8"	3/8"
017086	1/2"	3/8"
017088	1/2"	1/2"

Sleeves

Part No.	Tube Size
016340	1/4"
016360	3/8"
016380	1/2"
016300	5/8"
016301	3/4"

NOTE: Fitting sleeves should NEVER be reused

Full Union

Part No.	Tube Size
016240	1/4"
016260	3/8"
016280	1/2"
016200	5/8"
016201	3/4"

Elbow Ends Tubes

Part No.	Tube Size
016540	1/4"
016560	3/8"
016580	1/2"
016510	5/8"

Tee Ends Tubes

Part No.	Tube Size
016440	1/4"
016460	3/8"
016480	1/2"

Female Connectors

Part No.	Tube Size	Pipe Size
016642	1/4"	1/8"
016644	1/4"	1/4"
016662	3/8"	1/8"
016664	3/8"	1/4"
016666	3/8"	3/8"
016686	1/2"	3/8"
016688	1/2"	1/2"
016616	5/8"	3/8"
016618	5/8"	1/2"

Male Elbows *(Sealant Applied)*

Part No.	Tube Size	Pipe Size
016942	1/4"	1/8"
016944	1/4"	1/4"
016946	1/4"	3/8"
016962	3/8"	1/8"
016964	3/8"	1/4"
016966	3/8"	3/8"
016968	3/8"	1/2"
016984	1/2"	1/4"
016986	1/2"	3/8"
016988	1/2"	1/2"
016916	5/8"	3/8"
016908	5/8"	1/2"
016918	3/4"	1/2"
016922	3/4"	3/4"

Nuts

Part No.	Tube Size
016140	1/4"
016160	3/8"
016180	1/2"
016100	5/8"
016101	3/4"

Bulkhead Unions

Part No.	Tube Size
016204	1/4"
016206	3/8"
016208	1/2"

FITTINGS

Tee Thread Runs

(Sealant Applied)

Part No.	Tube Size	Pipe Size
017142	1/4"	1/8"
017144	1/4"	1/4"
017164	3/8"	1/4"
017166	3/8"	3/8"
017186	1/2"	3/8"
017188	1/2"	1/2"
017118	5/8"	1/2"

Male Connectors *(Sealant Applied)*

HELPFUL HINT

Refer to page 43 for Air Brake Hose Repair Fitting Kits 500007 and 500008

Part No.	Tube Size	Pipe Size
016842	1/4"	1/8"
016844	1/4"	1/4"
016846	1/4"	3/8"
016862	3/8"	1/8"
016864	3/8"	1/4"
016866	3/8"	3/8"
016868	3/8"	1/2"
016884	1/2"	1/4"
016886	1/2"	3/8"
016888	1/2"	1/2"
016806	5/8"	3/8"
016808	5/8"	1/2"
016818	3/4"	1/2"
016811	3/4"	3/4"

AIR BRAKE COMPRESSION FITTINGS

- Designed for use with nylon or copper air brake tubing (see page 44)
- **DOT compliant.** Fittings meet SAE J246 requirements
- All Brass Construction
- Pipe thread sealant featured on several fitting styles. This pre-applied sealant offers several benefits:
  - Provides no-leak assembly instantly. Saves application time and expense
  - Will not contaminate systems like tape shredding or liquid sealant
  - Can be reused up to five times
  - Provides excellent thread lubrication to prevent galling

45˚ Male Elbows

(Sealant Applied)

Part No.	Tube Size	Pipe Size
013075	3/8"	1/4"
013077	1/2"	3/8"

Tee Thread Branches

Part No.	Tube Size
011051	1/4"
011057	3/8"
011059	1/2"

Elbow Ends Tube

Part No.	Tube Size
011073	3/8"

Female Connectors

Part No.	Tube Size	Pipe Size
011085	1/4"	1/4"
011091	3/8"	1/8"
011093	3/8"	1/4"

Tee Thread Run

(Sealant Applied)

Part No.	Tube Size	Pipe Size
013041	3/8"	1/4"

Tee Thread Branches

Sealant Applied)

Part No.	Tube Size	Pipe Size
013049	1/4"	1/8"
013057	3/8"	1/4"

Male Connector (Sealant Applied)

Part No.	Tube Size	Pipe Size
012017	1/4"	1/8"
012021	1/4"	1/4"
012023	1/4"	3/8"
012035	3/8"	1/8"
012037	3/8"	1/4"
012041	3/8"	3/8"
012043	3/8"	1/2"
012045	1/2"	1/4"
012047	1/2"	3/8"
012049	1/2"	1/2"
012053	5/8"	3/8"
012055	5/8"	1/2"
012061	3/4"	1/2"

Spherical Sleeves

Part No.	Tube Size
011001	1/4"
011003	3/8"
011005	1/2"
011007	5/8"
011009	3/4"

NOTE: *Fitting sleeves should NEVER be reused*

FITTINGS

AIR BRAKE COMPRESSION FITTINGS (cont.)

Male Elbows

(Sealant Applied)

Part No.	Tube Size	Pipe Size
012067	1/4"	1/8"
012071	1/4"	1/4"
012073	1/4"	3/8"
012087	3/8"	1/8"
012091	3/8"	1/4"
012093	3/8"	3/8"
012095	3/8"	1/2"
012097	1/2"	1/4"
013001	1/2"	3/8"
013003	1/2"	1/2"
013011	5/8"	1/2"

Female Elbows

Part No.	Tube Size	Pipe Size
013026	1/4"	1/4"
013027	3/8"	1/4"

Compression Nuts

Part No.	Tube Size
011013	1/4"
011023	3/8"
011025	1/2"
011027	5/8"
011029	3/4"

***NOTE**: Tubing size stamped on each nut for easy identification*

Full Unions

Part No.	Tube Size
011033	1/4"
011041	3/8"
011043	1/2"
011045	5/8"
011047	3/4"

Nylon Tubing Inserts

Part No.	Tube Size
010087	1/4"
010089	3/8"
010094	1/2"
010096	5/8"
010098	3/4"

REUSABLE AIR HOSE FITTINGS

- Designed for use with rubber air brake hose (see page 42)
- Bodies, sleeves and nuts are all brass construction for durability and corrosion resistance
- Zinc-plated steel springs have rounded ends to protect air hose

Fitting Assemblies

Part No.	Hose I.D.	Pipe Size
500001	3/8"	1/2"
500009	3/8"	3/8"
500015	3/8"	1/4"
500050	1/2"	1/2"
500051	1/2"	3/8"

Fitting Bodies

Part No.	Hose I.D.	Pipe Size
500003	3/8"	1/2"
500011	3/8"	3/8"
500017	3/8"	1/4"
500053	1/2"	1/2"
500061	1/2"	3/8"

Nuts with & without Spring

Part No.	Description	Hose I.D.
500021	Spring & Nut	3/8"
500071	Spring & Nut	1/2"
500037	Nut Only	1/2"
500022	Nut Only	3/8"
500030	Spring Only	1/2"
500024	Spring Only	3/8"

Swivel Fitting Assemblies with Spring

Part No.	Hose I.D.	Pipe Size
500035	3/8"	1/4"
500042	3/8"	3/8"

Union Assemblies

Part No.	Hose I.D.
500031	3/8"
500088	1/2"

Swivel Body Adapters

Part No.	Hose I.D.	Pipe Size	Straight Thread
140000	3/8"	1/4"	3/4"-20
142001	3/8"	3/8"	3/4"-20
500052	1/2"	3/8"	7/8"-20

Swivel Fitting Assemblies

Part No.	Hose I.D.	Pipe Size
500039	3/8"	1/4"
500046	3/8"	3/8"
500094	1/2"	3/8"

Fitting Sleeves

Part No.	Hose I.D.
500005	3/8"
500055	1/2"

***NOTE:** Fitting sleeves should NEVER be reused*

REUSABLE AIR HOSE FITTINGS (cont.)

Fitting Assemblies with Spring

Part No.	Hose I.D.	Pipe Size
500019	3/8"	1/2"
500025	3/8"	3/8"
500027	3/8"	1/4"
500070	1/2"	1/2"
500078	1/2"	3/8"

Nuts

Part No.	Hose I.D.
500004	3/8"
500054	1/2"

Dual Barb Male Fitting

Part No.	Hose Size	Tube Size
500079	1/4"	1/8"
500080	1/4"	1/4"
500081	5/16"	1/4"
500082	3/8"	1/4"
500083	3/8"	3/8"
500084	5/8"	1/2"
500085	3/4"	3/4"

Hose Splicer

Part No.	Hose Size
500063	3/8"
500064	1/2"
500065	5/8"
500066	3/4"

COUPLINGS

Frame Couplings

- Zinc-plated steel construction
- FPT both ends

Part No.	Description	Overall Length	Mounting Thread
035081	1/4" Frame Coupling	1-1/2"	3/4" - 16
035087	3/8" Frame Coupling	1-3/8"	1" - 14

Firewall Coupling

- Zinc-plated steel construction
- 1/4" FPT both ends
- 3/16" diameter mounting holes on 1-3/8" centers

Part No	Description
501071	Firewall Coupling

CLAMPING STUDS

Male Clamping Stud

- Zinc-plated steel construction
- 1/2" MPT each end, 1/4" FPT one end
- 1" - 14 mounting thread
- 2-3/8" overall length

Part No	Description
035021	Male Clamping Stud

Female Clamping Stud

- Zinc-plated steel construction
- 1/2" MPT, 1/4" FPT one end and 1/2" FPT other end
- 1"-14 mounting thread
- 2- 1/4" overall length

Part No	Description
035029	Female Clamping Stud

Frame Clamping Stud

- Zinc-plated steel construction
- 1/2" MPT one end, 3/8" FPT one end
- 1" - 14 mounting thread
- 1-7/8" overall length

Part No	Description
035079	Frame Clamping Stud

Bulkhead Fitting - Female to Nylon Tubing

- 3/8" NPTF thread

Part No.	Tube Size
017098	1/2"
017099	3/8"

FITTINGS

DISCHARGE HOSE FITTINGS

- Designed for use with stainless steel braded discharge hose (see page 43)
- All brass bodies with brass sleeves and steel nuts

Straight Tubes

Part No.	Hose O.D.
142102	5/8"
142103	3/4"

Male Pipe Fitting

Part No.	Hose O.D.	Pipe Thread
142101	5/8"	1/2" - 14

Female Swivel Fittings

Part No.	Hose O.D.	Female Thread
142110	5/8"	7/8" - 14
142111	3/4"	1-1/16" - 14

Compression Fittings

Part No.	Hose O.D.	Male Thread
142106	5/8"	13/16" - 18
142107	3/4"	1" - 18

Fitting Sleeves

5/8" Hose O.D. Part No.	3/4" Hose O.D. Part No.	Description
142104	142105	Sleeve
142108	142109	Nut

NOTE: *Fitting sleeves should NEVER be reused*

FULLER TRANSMISSION COMPRESSION FITTINGS

- Designed for use with polyethylene nylon and plastic tubing **NOT FOR AIR BRAKE USE**
- All brass construction

Insert

Part No.	Tube Size
010085	3/16"

NOTE: *Nylon tubing inserts are required when using 3/16" tubing*

Nuts

Part No.	Tube Size
011012	1/8"
011014	3/16"
011016	5/32"

Full Unions

Part No.	Tube Size
011032	1/8"
011034	5/32"

Male Elbows

Part No.	Tube Size	Pipe Size
012064	5/32"	1/8"
012066	1/8"	1/8"
012068	3/16"	1/8"

Male Connectors

Part No.	Tube Size	Pipe Size
012016	1/8"	1/16"
012015	3/16"	1/8"
012012	5/32"	1/16"
012014	5/32"	1/8"
012022	1/8"	1/8"

Slotted Collets

Part No.	Tube Size
011000	1/8"
011020	5/32"

Sleeve

Part No.	Tube Size
010093	3/16"

NOTE: *Fitting sleeves should NEVER be reused*

VACUUM HOSE FITTINGS

Elbows

- All brass construction

Part No.	Hose I.D.	Pipe Size
175033	1/2"	3/8"

Nipples

Part No.	Hose I.D.	Pipe Size
149005	1/2"	1/2"
149006	3/4"	1/2"

- Designed for low and medium pressure applications

Square Head Plugs

Part No.	Pipe Size	Material
017061	1/8"	Plated Steel
017063	1/4"	Plated Steel
017065	3/8"	Plated Steel
017067	1/2"	Plated Steel
017069	3/4"	Plated Steel
017059	3/4"	Brass

Close Nipples

Part No.	Pipe Size	Material
016051	1/8"	Brass
016052	1/4"	Brass
016053	3/8"	Brass
016054	1/2"	Brass
016065	3/4"	Malleable Iron

Cap - Female Pipe fittings

Part No.	Pipe Size
017223	1/8"
017224	1/4"
017225	3/8"
017226	1/2"
017227	3/4"

Hex Nipples

Part No.	Pipe Size	Material
018009	1/8"	Brass
018010	1/4"	Brass
018011	3/8"	Brass
018012	1/2"	Brass
018023	3/4"	Plated Steel

Pipe Elbows

Part No.	Pipe Size	Material
017003	1/8"	Brass
017004	1/4"	Brass
017005	3/8"	Brass
017006	1/2"	Brass
017013	3/4"	Malleable Iron

45º Street Elbows

Part No.	Pipe Size	Material
017023	1/8"	Brass
017025	1/4"	Brass
017027	3/8"	Brass
017029	1/2"	Brass

Street Tees

Part No.	Pipe Size	Material
017091	1/8"	Brass
017093	1/4"	Malleable Iron
017095	3/8"	Malleable Iron
017096	1/2"	Malleable Iron

Pipe Nipples

Part No.	Pipe Size	Length	Material
016021	1/8"	1-1/2"	Brass
016025	1/4"	1-1/2"	Brass
016029	3/8"	1-1/2"	Brass
016033	1/2"	1-1/2"	Brass
016037	1/8"	2"	Malleable Iron
016038	1/4"	2"	Malleable Iron
016039	3/8"	2"	Malleable Iron
016040	1/2"	2"	Malleable Iron
016041	1/2"	3"	Malleable Iron
016042	3/4"	2"	Malleable Iron
016043	3/4"	3"	Malleable Iron

Reducer Couplings

Part No.	Pipe Size	Material
017081	1/4" x 1/8"	Brass
017083	3/8" x 1/4"	Brass
017085	1/2" x 3/8"	Brass

Pipe Tees

Part No.	Pipe Size	Material
016001	1/8"	Brass
016002	1/4"	Brass
016003	3/8"	Brass
016004	1/2"	Brass

Reducer Bushings

Part No.	Pipe Size	Material
016079	1/4" x 1/8"	Brass
016080	3/8" x 1/8"	Brass
016081	3/8" x 1/4"	Brass
016082	1/2" x 1/8"	Brass
016083	1/2" x 1/4"	Brass
016084	1/2" x 3/8"	Brass
016085	3/4" x 1/4"	Brass
016086	3/4" x 3/8"	Brass
016087	3/4" x 1/2"	Brass
017000	1" x 3/4"	Malleable Iron

Reducer Hex Nipples

Part No.	Pipe Size	Material
018013	1/4" x 1/8"	Brass
018025	3/8" x 1/4"	Plated Steel
018027	1/2" x 3/8"	Plated Steel
018029	3/4" x 1/2"	Plated Steel

Street Elbows

Part No.	Pipe Size	Material
017015	1/8"	Brass
017017	1/4"	Brass
017019	3/8"	Brass
017021	1/2"	Brass

Hex Head Plugs

Part No.	Pipe Size	Material
017051	1/8"	Brass
017053	1/4"	Brass
017055	3/8"	Brass
017057	1/2"	Brass

FITTINGS

Pipe Cross

Part No.	Pipe Size	Material
017073	1/8"	Brass

Couplings

Part No.	Pipe Size	Material
016067	1/8"	Brass
016068	1/4"	Brass
016069	3/8"	Brass
016070	1/2"	Brass
016077	3/4"	Malleable Iron

Adapters

Part No.	Pipe Size	Material
018006	1/4" x 1/8"	Brass
018007	3/8" x 1/4"	Brass
018008	1/2" x 3/8"	Brass

SAE 45° FLARE FITTINGS

- Designed for use with flareable copper, brass, aluminum and welded steel hydraulic tubing
- All Brass construction
- UL compliant for flammable liquid and gas
- Fittings meet SAE J246 requirements

Long Nuts

Part No	Tube Size	Straight Thread
014103	3/16"	3/8"-24
014104	1/4"	7/16"-20
014105	5/16"	1/2"-20
014106	3/8"	5/8"-18
014108	1/2"	3/4"-16
014100	5/8"	7/8"-14

Unions

Part No	Tube Size	Straight Thread
014203	3/16"	3/8"-24
014204	1/4"	7/16"-20
014205	5/16"	1/2"-20
014206	3/8"	5/8"-18
014208	1/2"	3/4"-16
014200	5/8"	7/8"-14

Union Tees

Part No	Tube Size	Straight Thread
014408	1/2"	3/4"-16
014400	5/8"	7/8"-14

45º Elbows

Part No	Tube Size	Pipe Size	Straight Thread
015942	1/4"	1/8"	7/16"-20
015944	1/4"	1/4"	7/16"-20
015964	3/8"	1/4"	5/8"-18
015966	3/8"	3/8"	5/8"-18
015986	1/2"	3/8"	3/4"-16
015988	1/2"	1/2"	3/4"-16
015906	5/8"	3/8"	7/8"-14
015908	5/8"	1/2"	7/8"-14
015918	3/4"	1/2"	1-1/16"-14

Hose Barb to Female Flare Swivel

Part. No.	Hose Size	Tube Size
016945	3/8"	3/8"
016948	1/4"	1/4"

Male Connectors

Part No	Tube Size	Pipe Size	Straight Thread
014822	1/8"	1/8"	5/16"-24
014832	3/16"	1/8"	3/8"-24
014842	1/4"	1/8"	7/16"-20
014844	1/4"	1/4"	7/16"-20
014852	5/16"	1/8"	1/2"-20
014854	5/16"	1/4"	1/2"-20

Part No	Tube Size	Pipe Size	Straight Thread
014862	3/8"	1/8"	5/8"-18
014864	3/8"	1/4"	5/8"-18
014866	3/8"	3/8"	5/8"-18
014868	3/8"	1/2"	5/8"-18
014884	1/2"	1/4"	3/4"-16
014886	1/2"	3/8"	3/4"-16

Part No	Tube Size	Pipe Size	Straight Thread
014888	1/2"	1/2"	3/4"-16
014806	5/8"	3/8"	7/8"-14
014808	5/8"	1/2"	7/8"-14
014818	3/4"	1/2"	1-1/16"-14
014811	3/4"	3/4"	1-1/16"-14

Male Elbows

Part No	Tube Size	Pipe Size	Straight Thread
014932	3/16"	1/8"	3/8"-24
014942	1/4"	1/8"	7/16"-20
014944	1/4"	1/4"	7/16"-20
014946	1/4"	3/8"	7/16"-20
014952	5/16"	1/8"	1/2"-20
014954	5/16"	1/4"	1/2"-20

Part No	Tube Size	Pipe Size	Straight Thread
014962	3/8"	1/8"	5/8"-18
014964	3/8"	1/4"	5/8"-18
014966	3/8"	3/8"	5/8"-18
014968	3/8"	1/2"	5/8"-18
014984	1/2"	1/4"	3/4"-16
014986	1/2"	3/8"	3/4"-16

Part No	Tube Size	Pipe Size	Straight Thread
014988	1/2"	1/2"	3/4"-16
014906	5/8"	3/8"	7/8"-14
014908	5/8"	1/2"	7/8"-14
014901	5/8"	3/4"	7/8"-14
014918	3/4"	1/2"	1-1/16"-14
014911	3/4"	3/4"	1-1/16"-14

INVERTED FLARE FITTINGS

- Designed for use with flareable copper, brass, aluminum and welded steel hydraulic tubing
- All brass construction (unless otherwise noted)
- UL compliant for flammable liquid and gas
- Fittings meet SAE J246 requirements
- DOT Compliant

Nuts

Part No.	Tube Size	Straight Thread	Material
006103	3/16"	3/8"-24	Brass
006104	1/4"	7/16"-24	Brass
006105	5/16"	1/2"-20	Brass
006106	3/8"	5/8"-18	Brass
006108	1/2"	3/4"-18	Brass
006303	3/16"	3/8"-24	Plated Steel
006304	1/4"	7/16"-24	Plated Steel
006314*	1/4"	7/16"-24	Plated Steel
006305	5/16"	1/2"-24	Plated Steel
006306	3/8"	5/8"-18	Plated Steel

**006314 - Straight Thread is 7/16"-24 UNS-2A*

Male Elbows

Part No.	Tube Size	Pipe Size	Straight Thread
006932	3/16"	1/8"	3/8"-24
006942	1/4"	1/8"	7/16"-24
006944	1/4"	1/4"	7/16"-24
006952	5/16"	1/8"	1/2"-20
006954	5/16"	1/4"	1/2"-20
006962	3/8"	1/8"	5/8"-18
006964	3/8"	1/4"	5/8"-18
006966	3/8"	3/8"	5/8"-18
006986	1/2"	3/8"	3/4"-18
006908	5/8"	1/2"	7/8"-14

Male Connectors

Part No.	Tube Size	Pipe Size	Straight Thread
006842	1/4"	1/8"	7/16"-24
006852	5/16"	1/8"	1/2"-20
006854	5/16"	1/4"	1/2"-20
006864	3/8"	1/4"	5/8"-18
006866	3/8"	3/8"	5/8"-18
006886	1/2"	3/8"	3/4"-18

Female Connectors

Part No.	Tube Size	Pipe Size	Straight Thread
006642	1/4"	1/8"	7/16"-24
006652	5/16"	1/8"	1/2"-20
006664	3/8"	1/4"	5/8"-18

Unions

Part No.	Tube Size	Straight Thread
006202	1/8"	5/16"-28
006203	3/16"	3/8"-24
006204	1/4"	7/16"-24
006205	5/16"	1/2"-20
006206	3/8"	5/8"-18
006208	1/2"	3/4"-18

Part No	Description
690031	In-Cab Air Line Repair Kit - Push Lock
690033	Air Brake Line Repair Kit - Push Lock
690035	Nylon Tubing Repair Kit - Push Lock
690037	Transmission Air Line Repair Kit -Push Lock
690050	NTA Fitting Kit

IN-CAB AIR LINE REPAIR KIT
Part No 690031 — **24 Total Fittings**

016112 1/8 x 1/8 m. conn 2 pcs.	**016114** 1/8 x 1/4 m. conn 2 pcs.	**016142** 1/4 x 1/8 m. conn 2 pcs.	**016144** 1/4 x 1/4 m. conn 2 pcs.	**016162** 3/8 x 1/8 m. conn 1 pc.	**016164** 3/8 x 1/4 m. conn 1 pc.
016242 1/4 x 1/8 elbow 1 pc.	**016244** 1/4 x 1/4 elbow 1 pc.	**016264** 3/8 x 1/4 elbow 1 pc.	**016910** 1/8 tee 1 pc.	**016930** 3/16 tee 1 pc.	**016940** 1/4 tee 1 pc.
016610 1/8 union 2 pcs.	**016630** 3/16 union 2 pcs.	**016640** 1/4 union 2 pcs.	**016660** 3/8 union 1 pc.	**016960** 3/8 tee 1 pc.	OPEN

AIR BRAKE LINE REPAIR KIT
Part No 690033 — **24 Total Fittings**

016166 3/8 x 3/8 m. conn 2 pcs.	**016168** 3/8 x 1/2 m. conn 1 pc.	**016184** 1/2 x 1/4 m. conn 1 pc.	**016268** 3/8 x 1/2 m. conn 1 pc.	**016284** 1/2 x 1/4 m. conn 1 pc.	**016286** 1/2 x 3/8 m. conn 1 pc.
016186 1/2 x 3/8 m. conn 2 pcs.	**016188** 1/2 x 1/2 m. conn 1 pc.	OPEN			
			016288 1/2 x 1/2 elbow 1 pc.	**016960** 3/8 tee 2 pcs.	**016980** 1/2 tee 2 pcs.
016660 3/8 union 2 pcs.	**016680** 1/2 union 2 pcs.	**016266** 3/8 x 3/8 elbow 2 pcs.			

NYLON TUBING REPAIR KIT
Part No. 690035

2 ft. section of each:			2 pcs. of each:	
020132	1/8" nylon tubing	Blue	**016610**	1/8" union
020065	5/32" nylon tubing	Black	**016620**	5/32" union
020066	3/16" nylon tubing	Black	**016630**	3/16" union
020164	1/4" nylon tubing	Yellow	**016640**	1/4" union
020156	3/8" nylon tubing	Red	**016660**	3/8" union
020168	1/2" nylon tubing	Yellow	**016680**	1/2" union
090014	7" nylon tie straps, 12 pcs.			
090028	nylon tube cutter, 1 pc.			

TRANSMISSION AIR LINE REPAIR KIT
Part No 690037 — **11 Total Fittings**

016112 1/8 x 1/8 m. conn 1 pc.	**016120** 5/32 X 1/16 m. conn 2 pcs.	**016122** 5/32x1/8 m. conn 2 pcs.	**016212** 1/8 x 1/8 m. conn 1 pc.	**016222** 5/32x1/8 m. conn 1 pc.	**090028** Nylon Tube Cutter
OPEN	OPEN	OPEN			
016610 1/8 union 1 pc.	**016620** 5/32 union 1 pc.	**016630** 3/16 union 1 pc.	OPEN	OPEN	OPEN

NYLON AIR BRAKE TUBE FITTING KIT
Part No 690050 — **33 Total Fittings**

016842 1/4 x 1/8 m. conn 2 pcs.	**016844** 1/4 x 1/4 m. conn 3 pcs.	**016240** 1/4 full union 2 pcs.	**016260** 3/8 full union 2 pcs.	**016280** 1/2 full union 2 pcs.	**016200** 5/8 full union 2 pcs.
016864 3/8 x 1/4 m. conn 2 pcs.	**016866** 3/8 x 3/8 m. conn 1 pc.	**016886** 1/2 x 3/8 m. conn 1 pc.			
			016966 3/8 x 3/8 m. elbow 3 pcs.	**016986** 1/2 x 3/8 m. elbow 2 pcs.	**016988** 1/2 x 1/2 m. elbow 2 pcs.
016942 1/4 x 1/8 m. elbow 2 pcs.	**016944** 1/4 x 1/4 m. elbow 3 pcs.	**016964** 3/8 x 3/8 m. elbow 2 pcs.			

Large Air Brake Fitting Assortment

Assortment includes the following part numbers and quantities plus rack part number 690090, P. 151

Part No.	Total Fittings
690059	583

Part No.	Qty.	Part No.	Qty.
010087	50	012021	10
010089	50	012035	5
010094	25	012037	20
010096	25	012041	10
010098	25	012043	5
011001	25	012045	10
011003	50	012047	10
011005	25	012049	5
011007	10	012053	3
011009	10	012055	3
011013	25	012067	10
011023	15	012071	10
011025	5	012087	5
011027	3	012091	20
011029	3	012093	5
011033	10	012095	5
011041	15	012097	5
011043	10	013001	10
011045	3	013003	5
011047	2	013011	3
011057	5	013041	5
011059	3	013057	5
011073	5	013075	5
012017	10	690090	1

Push-Lock Fitting Assortment

Assortment includes the following part numbers and quantities plus rack part number 690090, P. 151

Part No.	Total Fittings
690072	155

Part No.	Qty.	Part No.	Qty.
016112	5	016266	5
016114	5	016268	5
016120	5	016284	5
016122	5	016286	5
016142	5	016288	5
016144	5	016610	5
016162	5	016620	5
016164	5	016630	5
016166	5	016640	5
016168	5	016660	5
016184	5	016680	5
016186	5	016930	5
016188	5	016940	5
016242	5	016960	5
016244	5	016980	5
016264	5	690090	1

Nylon Air Brake Tube Fitting Assortment

Assortment includes the following part numbers and quantities plus rack part number 690090, P. 151

Part No.	Total Fittings
690071	304

Part No.	Qty.	Part No.	Qty.
016100	3	016866	5
016101	3	016884	5
016140	25	016886	5
016160	10	016888	5
016180	5	016908	3
016200	3	016916	5
016201	2	016918	2
016240	10	016922	5
016260	5	016942	10
016280	5	016944	10
016300	10	016962	5
016301	10	016964	5
016340	25	016966	5
016360	25	016968	5
016380	25	016984	5
016808	3	016986	5
016818	2	016988	5
016842	10	017264	5
016844	10	017266	5
016862	5	017286	3
016864	5	690090	1

Brass Pipe Fitting Assortment

Assortment includes the following part numbers and quantities plus rack part number 690090, P. 151

Part No.	Total Fittings
690064	340

Part No.	Qty.	Part No.	Qty.	Part No.	Qty.	Part No.	Qty.
016001	5	016069	5	017019	5	018006	10
016002	5	016070	5	017021	5	018007	10
016003	5	016079	10	017023	5	018008	10
016004	5	016080	10	017025	5	018009	10
016051	10	016081	30	017027	5	018010	20
016052	20	016083	5	017029	5	018011	10
016053	20	016084	5	017051	10	018012	5
016054	5	016087	5	017053	20	690090	1
016067	10	017015	5	017055	20		
016068	10	017017	5	017057	5		

See Pages 107 - 116 for fitting photos and descriptions

Miniature/General Purpose Slotted/Liner/EuroSeal® Clamps

Miniature clamps ideal for use on air and fuel lines

General purpose slotted clamps meet applicable SAE J1508 requirements

Liner clamps designed with inner liner to protect silicone hose from extruding through band slots; unique construction allows more tightening torque to be delivered to the perforations while maximizing vibration resistance

Euro-Seal® clamps with embossed threads and rounded band edge to help eliminate hose abrasion and damage. Clamps meet or exceed international clamp specifications for material, corrosion resistance, sizing and torque.

- All clamps feature 300 series stainless steel bands
- Miniature, general purpose and liner clamps include yellow dichromate slotted hex head screws. Euro-Seal® clamps feature 300 series stainless steel screws

Miniature Clamps	General Purpose Slotted Clamps	Liner Clamps	Euro-Seal® Clamps	SAE Size	Clamping Range (in.)
022204	—	—	—	4	7/32 - 5/8
022206	**022306**	**022106**	**022506**	6	7/16 - 25/32
—	**022308**	**022108**	**022508**	8	1/2 - 29/32
—	**022310**	**022110**	**022510**	10	9/16 - 1-1/16
—	**022312**	**022112**	**022512**	12	11/16 - 1-1/4
—	**022316**	**022116**	**022516**	16	13/16 - 1-1/2
—	**022320**	**022120**	**022520**	20	13/16 - 1-3/4
—	**022324**	**022124**	**022524**	24	1-1/16 - 2
—	**022328**	**022128**	**022528**	28	1-5/16 - 2-1/4
—	**022332**	**022132**	**022532**	32	1-9/16 - 2-1/2
—	**022336**	**022136**	**022536**	36	1-13/16 - 2-3/4
—	**022340**	**022140**	**022540**	40	2-1/16 - 3
—	**022344**	**022144**	**022544**	44	2-5/16 - 3-1/4
—	**022348**	**022148**	**022548**	48	2-9/16 - 3-1/2
—	**022352**	—	—	52	2-13/16 - 3-3/4
—	**022356**	—	**022556**	56	3-1/16 - 4
—	**022360**	—	—	60	3-5/16 - 4-1/4
—	**022364**	—	**022564**	64	3-9/16 - 4-1/2
—	**022372***	—	**022572**	72	4-1/16 - 5
—	**022380***	—	**022680**	80	4-9/16 - 5-1/2
—	**022388***	—	**022688**	88	5-1/16 - 6
—	**022396***	—	—	96	5-9/16 - 6-1/2
—	**022404***	—	**022574**	104	6-1/16 - 7

**These clamps may be made smaller than the clamping range shows in the table. Following are the smallest diameters for each of these clamps in the order shown on the chart: 1-78", 2-1/2", 3-1/8", 3-5/8", 4-1/8"*

Euro-Seal® is a registered trademark of Breeze Industrial Products

Spring Loaded T-Bolt Clamps

- Eliminates "cold flow hose leaks" by automatically adjusting diameter for hose compression set or expansion/contraction of hose and fittings due to temperature changes
- Recommended for bus, truck and heavy-duty equipment air intake and coolant connectors
- 300 series stainless steel band, floating bridge liner and trunion
- Yellow dichromate-plated steel bolt, spring, washer and 1/2" lock-nut
- Clamps meet applicable SAE J1508 requirements

Part No.	Clamping Range (mm)	Clamping Range (in.)
022580	57-65	2-1/4 - 2-9/16
022581	67-77	2-3/4 - 3-1/16
022582*	78-86	3-1/16 - 3-3/8
022583	87-95	3-7/16 -3-3/4
022584*	90-98	3-9/16 -3-7/8
022585	98-106	3-7/8 - 4-3/16
022626*	103-111	4-1/16- 4-3/8
022586	106-114	4-3/16- 4-1/2
022627*	116-124	4-9/16- 4-7/8

* *Designed for change-air cooling applications*

T-Bolt Clamps

- Applications include engine air intake, exhaust, hoses, filters and low pressure hydraulic connections
- 300 series stainless steel band, floating bridge liner and trunion
- Yellow dichromate-plated steel bolt and 7/16" locknut
- Clamps meet applicable SAE J1508 requirements

Part No.	Clamping Range (mm)	Clamping Range (in.)
022550	63 - 71	2-1/2 - 2-13/16
022551	67 - 77	2-3/4 - 3-1/16
022587	76 - 84	3 - 3-5/16
022588	83 - 90	3-1/4 - 3-9/16
022589	87 - 98	3-7/16- 3-7/8
022591	95 - 103	3-3/4 - 4-1/16
022592	108 - 116	4-1/4 - 4-9/16
022593	121 - 128	4-3/4 - 5-1/16
022557	133 - 141	5-1/4 - 5-9/16
022594	146 - 154	5-3/4 - 6-1/16
022596	159 - 166	6-1/4 - 6-9/16
022597	184 - 192	7-1/4 - 7-9/16
022598	216 - 223	8-1/2 - 8-13/16

Constant-Torque® Clamps

- Patented Belleville spring design eliminates "cold flow hose leaks" by automatically adjusting diameter for hose compression set or expansion/contraction of hose and fittings due to temperature changes
- Specified by many top fleets for new vehicle installations
- Recommended for bus, truck and heavy-duty equipment air intake and coolant connections
- Extended inner liner covers worm gear slots to protect against extrusions and damage
- All stainless steel construction
- Extended adjustment range permits fewer stocked parts for complete coverage

NOTE: *For proper installation, the Belleville spring washer stacks should be nearly collapsed flat and the screw tip should extend beyond 1/4". Using a torque wrench, tighten to recommended torque range.*

Constant-Torque® is a registered trademark of Breeze Industrial Products

Part No.	Clamping Range (mm)	Clamping Range (in.)
Torque Rated at 30-70 in./lbs.		
022410	14 - 27	9/16 - 1-1/16
022412	17 - 32	11/16 - 1-1/4
022416	21 - 38	13/16 - 1-1/2
022420	21 - 44	13/16 - 1-3/4
022424	27 - 51	1-1/16 - 2
Torque Rated at 40-125 in./lbs.		
022400	32 - 54	1-1/4 - 2-1/8
022425	45 - 67	1-3/4 - 2-5/8
022430	57 - 79	2-7/4 - 3-1/8
022435	70 - 92	2-3/4 - 3-5/8
022440	83 - 105	3-1/4 - 4-1/8
022445	95 - 118	3-3/4 - 4-5/8
022450	108 - 130	4-1/4 - 5-1/8

Muffler Clamps/Saddle Clamps

- Heavy duty clamp with round 3/8-16
- Zinc plated for corrosion protection
- Complete with grade 2 serrated flange nuts
- Individually packaged

Part No.	Size
022048	1.75
022049	2
022050	2.5
022051	3
022052	3.5
022053	4
022054	4.5
022055	5

Guillotine Style Clamp

- Heavy-duty guillotine clamps are manufactured with a round 3/8-16 u-bolt and are zinc plated for corrosion protection
- Clamp contains a reinforced rib design for enhanced strength
- Packaged individually in a poly bag
- Complete with grade 2 serrated flange nuts

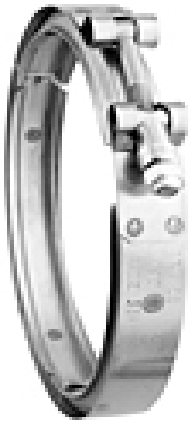
Part No.	Size
022056	4"
022057	4.5"
022058	5"

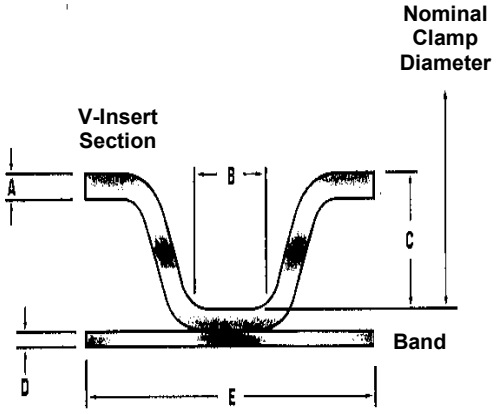
Flat Band Clamp

- Manufactured with a stainless steel band for corrosion protection
- Clamp assembly consists of a stainless steel band with one spacer, two bolts and one reaction block pre-attached to band with one spacer and two nuts packaged with the band

Part No.	Size
022059	4"
022060	5"

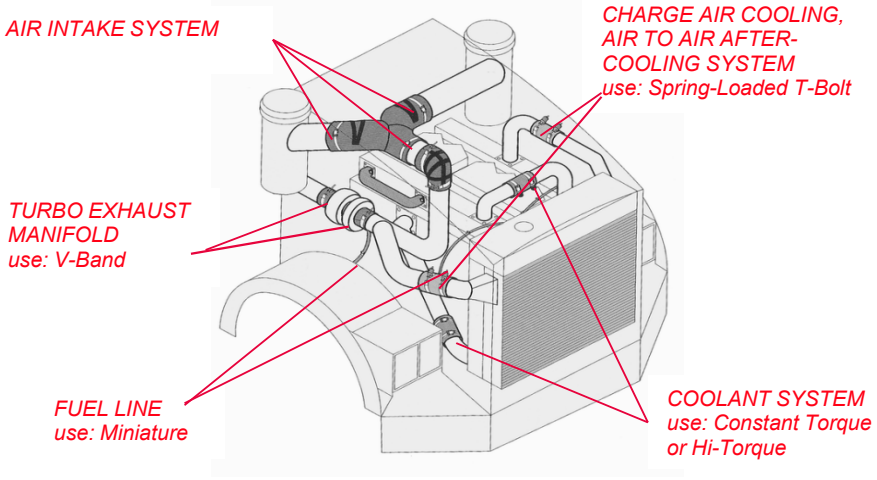
Turbo V-Band Clamps





- Clamps connect vehicle exhaust pipe flange to turbo or engine manifold
- Built to withstand high temperatures produced by heavy-duty engines and turbos
- All stainless steel construction
- Clamps meet or exceed OEM specifications for material and quality standards

	Nominal	Clamp Dimensions (in.)					
Part No.	(in.)	A	B	C	D	E	Applications
022470	3.82	.077	.207	.281	.040	.875	CAT, DDC, Ford, GMC, Navistar
022471	3.88	.050	.400	.281	.040	.875	Cummins, Ford, Volvo
022472	4.50	.077	.207	.281	.040	.875	DDC, GMC, Navistar
022473	4.61	.050	.156	.218	.035	.750	Mack, Switzer
022474	4.75	.077	.158	.310	.040	.875	Cummins, CAT, Freightliner, GMC, Navistar, Volvo, Western Star
022475	5.25	.050	.262	.141	.035	.750	DDC, Navistar, Freightliner
022476	5.88	.050	.400	.281	.040	.875	Cummins, DDC, CAT
022477	4.50	.050	.262	.141	.035	.750	Navistar
022478	3.21	.050	.262	.141	.035	.750	Cummins, Freightliner, Blue Bird bus, Ford, Oshkosh



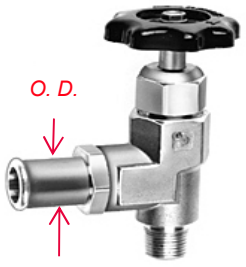
Hi-Torque® Clamps

- Heavy gauge housing engineered so eight screw threads are simultaneously engaged to provide over four times the recommended SAE torque requirements of standard worm drive clamps
- All stainless steel construction
- Extended diameter ranges allow coverage from 1-1/4" to 9-1/8" with only four clamps
- Clamps exceed applicable SAE J1508 requirements

	Clamping Range (mm)	Clamping Range (in.)
022462	32 - 67	1-1/4 - 2-5/8
022463	54 - 105	2-1/8 - 4-1/8
022464	102 - 156	4 - 6-1/8
022465	156 - 232	6-1/8 - 9-1/8

Hi-Torque is a registered trademark of Breeze Industrial Products

Coolant Shutoff Valves

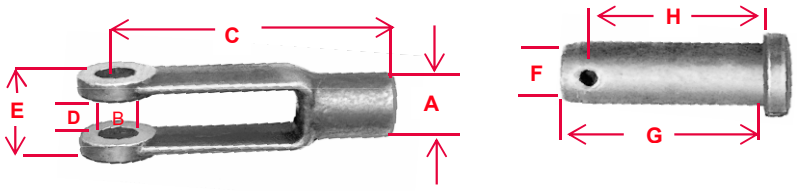


- All brass construction

Part No.	O.D.	Pipe Size
023066	3/8"	3/8"
023106	5/8"	3/8"
023108	5/8"	1/2"
023126	3/4"	3/8"
023128	3/4"	1/2"

FITTINGS

Clevis and Clevis Pin Kits

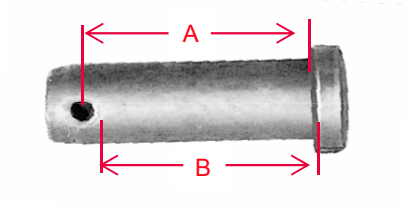


- Each kit includes one yoke, clevis pin and cotter pin
- Forged steel construction
- Zinc-plated for corrosion resistance

Part No.	A	B	C	D	E	F	G	H
019049	5/8" -18	1/2"	1-7/8"	9/16"	1-1/4"	1/2"	1-1/2"	1-3/8"
019050	1/2" -20	1/2"	1-7/8"	9/16"	1-1/4"	1/2"	1-1/2"	1-3/8"
019051	5/8" -18	1/2"	4-15/16"	9/16"	1-1/4"	1/2"	1-5/8"	1-3/8"
019088*	5/8" -18	1/2"	1-7/8"	9/16"	1-1/4"	1/2"	1-1/2"	1-11/32"

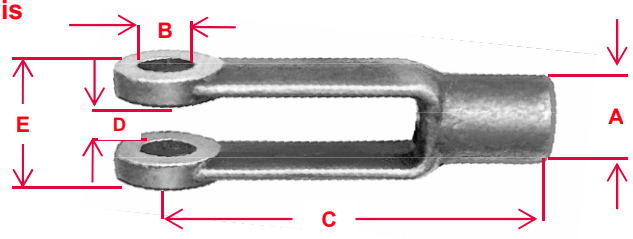
**Includes 3/8" x 1/4" reducer busing and 5/8" - 18 hex nut*

Standard Clevis Pins



Part No.	Nominal Size	A	B
019057	1/4	0.672	0.633
019059	5/16	0.812	0.757
019061	3/8	0.938	0.883
019065	1/2	1.203	1.133
019067	1/2	1.343	1.273
019069	1/2	1.593	1.523
019071	5/8	1.453	1.383
019073	5/8	1.593	1.523

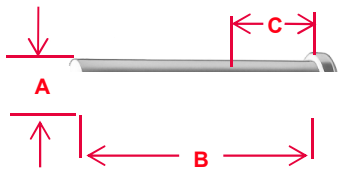
Clevis



- Forged steel construction
- Zinc-plated for corrosion resistance

Part No.	A	B	C	D	E
019002	1/4" -28	1/4"	2"	9/32"	5/8"
019003	5/16" -24	5/16"	2-1/4"	11/32"	3/4"
019004	3/8" -24	3/8"	2-1/2"	7/16"	7/8"
019006	1/2" -20	1/2"	3"	9/16"	1-1/8"
019009	1/2" -20	1/2"	1-7/8"	9/16"	1-1/4"
019011	5/8" -18	1/2"	1-7/8"	9/16"	1-1/4"
019013	5/8" -18	1/2"	2-5/16"	9/16"	1-1/2"
019015	5/8" -18	5/8"	4-15/16"	11/16"	1-3/8"
019017	5/8" -18	5/8"	2-5/16"	9/16"	1-1/2"

Universal Clevis Pins



- Each includes cotter pin

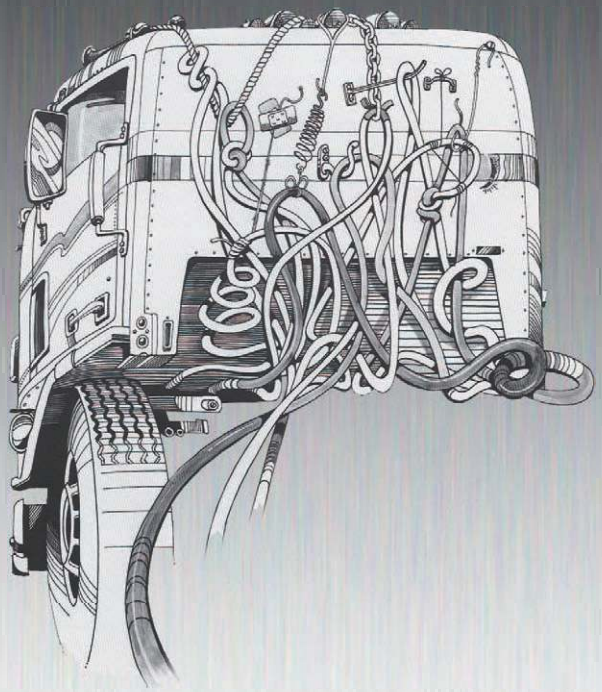
Part No.	A	B	C*
019058	1/4"	2"	17/32"
019060	5/16"	2"	9/16"
019062	3/8"	2"	17/32"
019064	7/16"	2"	9/16"
019070	1/2"	2"	9/16"
019072	5/8"	3"	9/32"

**Holes are spaced at 1/4" intervals*

Hose Support 125-127

Don't let this happen to your truck!

Velvac has the pogo sticks and suspenders needed to organize your hoses and cables so you get maximum life out of these vital components.



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NEW Indicates a new product added to catalog

VELVAC Original Indicates an original Velvac® product

Revised Part No. Indicates a revised part number

For quantity and packaging information, refer to our price list.

Customer Solutions 800.783.8871
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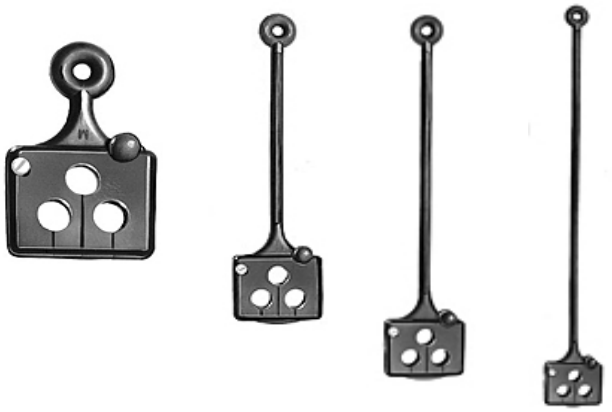
Aero-Bell, ALL STAR, ClearCam, Mod Pod, Revolution, RXV, Superstar, Top Hat, V-MAX, V-MAX III and Wedge are trademarks of Velvac, Inc.

VELVAC® In the Passing Lane Since 1934

Hose and Cable Suspenders

Five year limited warranty!



- Molded of durable rubber components which remain flexible to -40˚ F
- Will not stretch out or corrode like traditional steel support springs
- Reduce damage to cab body paint
- 3/4" diameter holes
- For use with hose brackets, pogo sticks and slide bars

Part No.	Description
580081	5" Overall Length
580082	12" Overall Length
580086	16" Overall Length
580094	24" Overall Length

US Patent No. 4,358,082

Replacement Tracker Bar Kits

Tracker bar tender kits are designed to hold air lines and electrical cables to prevent kinks and abrasions during normal highway use

KIT INCLUDES:

- 16" or 20" Spring- plated for added corrosion resistance and double looped ends for additional strength
- Snap Clip- rust resistant stainless steel which clips easily onto a tracker bar or pogo stick
- 3 Hose Holder Assembly- neatly holds two air hoses and an electrical cable
- Velvac Woven Mesh Jacket- protects spring from the elements while giving a clean look.

Part No.	Description
580111	Kit with 16" Spring
580112	Kit with 20" Spring
580107	Stainless Steel Snap Clip

Slide Bar and Hose Suspender Kit

NEW

- Slide bar is 3/4" OD stainless steel tubing with 42-1/2" mounting centers
- Kit includes slide bar, 24" hose and cable suspender, nylon ring and zinc-plated steel "S" hook

Part No.	Description
580066	Complete Kit
580078	Replacement Ring with "S" hook
580067	Replacement Slide Bar
580076	"S" hook

Hose Holders and Separators

Part No. 580037

Part No. 580038

Part No. 580039

Part No. 580040

Part No. 580041

- ABS plastic construction

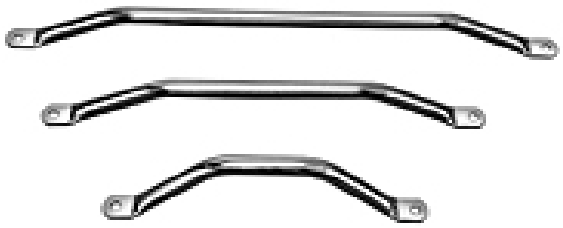
Part No.	I.D.	Description
580037	3/8"	2 Hose Separator
580038	3/8"	4 Hose Separator
580039	1/2"	2 Hose Separator
580040	1/2"	3 Hose Separator
580041	1/2"	4 Hose Separator

Hose Support Springs

- Springs support either air or vacuum lines
- Heat-treated, zinc plated spring steel construction provide corrosion resistance
- Double wire loop ends add extra strength

Part No.	Description
038001	3/4" O.D. x 13" long
038003	1" O.D. x 13" long
038008	1-1/8" O.D. x 8' long
038005	1-1/8" O.D. x 28" long

Grab Handles



- 3/4" O.D. heavy gauge stainless steel tubing
- 5/16" diameter mounting holes

Part No.	Description	Grabbing Width
690021	12" Span	3"
690022	18" Span	2"
690023	24" Span	2"

NOTE: *Span measurement taken between mounting holes*

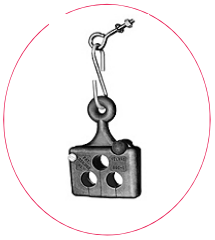
Pogo Sticks

- Durable, zinc-plated steel bodies provide excellent support for air, vacuum and electrical lines
- Snubber chin assembly helps prevent pogo stick from coming in contact with cab
- Heavy-duty, polyester coated, oil-tempered steel springs can withstand 90 ˚ from vertical bends
- 5/8" - 11 stud and nut for extra support
- Heavy fabric hose holder strap included where pictured

Part No.	Description
581001	40" Pogo Stick with Snubber Chain
581005	40" Pogo Stick with Gladhand Holder and Snubber Chain
581006	Gladhand Holder Kit

- **NO SNUBBER CHAIN** for use only when pogo stick is at least 24" away from cab

Part No.	Description
581011	40" Pogo Stick
581015	40" Pogo Stick with Gladhand Holder
581006	Gladhand Holder Kit



Part No. 581038

- Combines popular 40" pogo stick with 5" rubber hose and cable suspender (see page 105 for hose and cable suspender)
- Adapter kit retrofits 5" hose and cable suspender on existing pogo sticks and includes "S" hook and eyebolt hardware (9/32" hole is required for installation of eyebolt)

Part No.	Description
581040	Pogo Stick and Hose Suspender Assembly with Snubber Chain
581038	Hose and Cable Adapter Kit

Hose and Cable Suspender US Patent No. 4,358,082

Fuel Systems 129-135

With fuel prices steadily rising, make sure you protect your investment.

Velvac offers a range of locking fuel caps and anti-siphon tubes to keep unsavory characters from the hard earned money you just pumped into your fuel tank. With OEM approved designs and patented locking features, Velvac has you covered.

- Fusible meltouts for thermal relief
- Safety chains and crossbars
- Locking and non-locking caps
- Safety valves and vents

NEW — Indicates a new product added to catalog

VELVAC Original — Indicates an original Velvac® product

Revised Part No. — Indicates a revised part number

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VELVAC® In the Passing Lane Since 1934

Gas / Diesel Fuel Caps

Vented aluminum caps meet 49 CFR 393.67 requirements for vehicles built after October 1985.
Vented brass caps are designed for use only on vehicles with non-vented fuel systems built prior to October 1985.
Non-vented brass caps are designed for use only on vehicles equipped with properly vented fuel systems. For complete information on current fuel tank system requirements, see Code of Federal Regulations 49 CFR 393.67

A

C

D
B

- Available in vented or non-vented feature.
- Fusible meltouts on brass fuel caps for thermal relief.
- Safety chains and crossbars are standard on all caps except Part No. 600009 which features a 14" exterior cable with an attached 3/16" I.D. ring
- Patented Loc-Gard on locking cap protects against moisture and contaminants (US Patent No. 4,706,841).
- All locking fuel caps are supplied with 2 keys.

Aluminum fuel caps are designed only for Diesel applications, whereas, Brass fuel caps are designed for gasoline, diesel and oil applications.

BRASS FUEL CAPS - Designed for Gasoline or Diesel applications

Brass Locking Fuel Caps

Part No.	Photo	Description	Nominal Size	Threads Per Inch	Across Threads Cap	Across Threads Filler Neck
600196-6	A	Female, Non-Vented	2	11-1/2	2-1/4"	2-5/16"

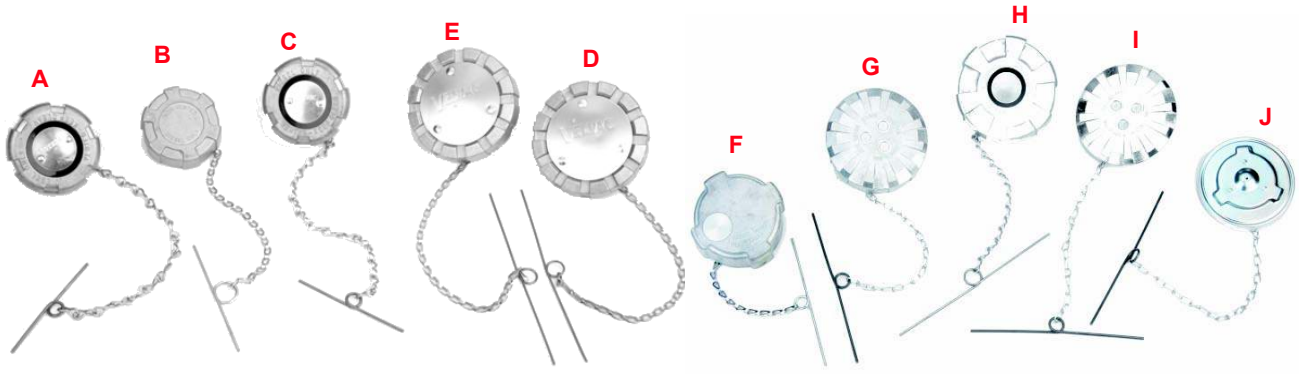
Brass Non-Locking Fuel Caps

Part No.	Photo	Description	Nominal Size	Threads Per Inch	Across Threads Cap	Across Threads Filler Neck
600009	B	Female, Non-Vented	2	11-1/2	2-1/4"	2-5/16"
600133	C	Female, Non-Vented	2	11-1/2	2-1/4"	2-5/16"
600007	C	Female, Vented	2	11-1/2	2-1/4"	2-5/16"
600017	D	Male, Vented	2-1/8"	12	2-1/8"	2-1/16"

REPLACEMENT PARTS FOR BRASS CAPS

Part No.	Description
600011	Replacement Gasket for Female Brass Caps
600021	Replacement Gasket for Male Brass Caps
600040	Replacement Chain and Crossbar for Brass Caps
600041	Replacement Lock Cam for Female Locking Brass Caps
601050	Replacement Loc-Gard Protection Cap for Female Locking Brass Caps
600176	Replacement Loc-Gard Cap for Female, Non-Vented Locking Brass Caps
600631	Replacement Key No. 31 for Female Locking Brass Fuel Cap
600632	Replacement Key No. 32 for Female Locking Brass Fuel Cap NEW
600633	Replacement Key No. 33 for Female Locking Brass Fuel Cap

Aluminum Fuel Caps - Designed for Diesel Fuel Applications



Aluminum Non-Locking Fuel Caps

Part No.	Photo	Description	Nominal Size	Threads Per Inch	Across Threads Cap	Across Threads Filler Neck
600135	A	Female, Vented	2"	11-1/2	2-1/4"	2-5/16"
600198	B	Female, Non-Vented	2"	11-1/2	2-1/4"	2-5/16"
600136	C	Female, Vented	2-1/2"	8	2-1/2"	2-9/16"
600186	D	Female, Vented	2"	11-1/2	2-1/4"	2-5/16"
		Replaces Freightliner A03-12927-4 and Kenworth K071-398**				
600184	E	Female, Vented	3"	8	3-3/8"	3-7/16"
		Replaces Freightliner A03-15682-4 and Western Star 43301-3401*				
600148	F	Female, 1/4 Turn	3"	N/A	3-1/2"	3-7/16"
		Replaces Freightliner 03-37017-000				
600168	G	Female, Non-Vented	4"	8		
600180	H	Female, Vented	4"	8	4-1/2"	4"
600172	I	Male, Non-Vented	4-1/4"	8	4-1/4"	4-1/8"
601065	J	Bayonet Style	4"	N/A	3-7/8"	

REPLACEMENT PARTS FOR ALUMINUM CAPS

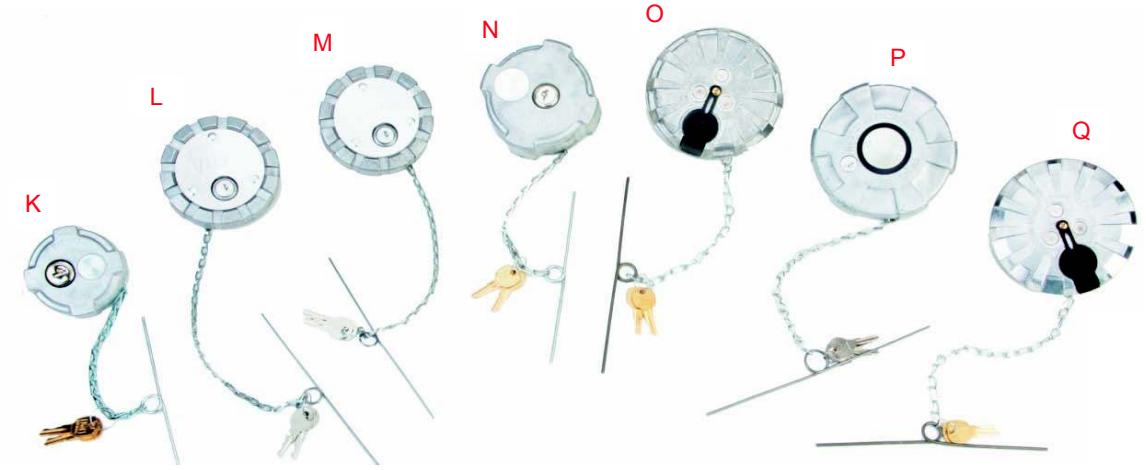
Part No.	Description
600081	Replacement Gasket for Female 3" Aluminum Fuel Cap
600041	Replacement Lock Cam for Female, Non-Vented, locking Cap
600053	Replacement Lock Cam for Male Locking Cap
600175	Replacement Loc-Gard Protection Cap for Male Locking Cap
600176	Replacement Loc-Gard Protection Cap for Female, Non-Vented, Locking Cap
601063	Replacement Chain and Crossbar for Non-Vented Cap
601069	Replacement Gasket for Non-Vented Cap
601063	Replacement Chain and Crossbar for Bayonet Fuel Cap
600631	Replacement Key No. 31 for Non-Vented, Locking Cap
600632	Replacement Key No. 32 for Non-Vented, Locking Cap NEW
600633	Replacement Key No. 33 for Non-Vented, Locking Cap

Non-Vented caps are designed for use only on vehicles with properly vented fuel systems. For Complete information on current fuel tank system requirements, see Code of Federal Regulations 49 CFR 393.67

** Freightliners after 1983 and Western Star after 1982 both with diesel fuel tanks with 3" male pipe filler necks.*

*** Freightliners prior to 1984 and Kenworth after 1984, Peterbilt prior to 1980 and Western Stars prior to 1983 all with diesel fuel tanks with 3" male pipe filler necks.*

Aluminum Locking Fuel Caps



Part No.	Photo	Description	Nominal Size	Threads Per Inch	Across Threads Cap	Across Threads Filler Neck
600150	K	Female, Non-Vented Application: Freightliner M2	2.5"	8	4-3/8"	4-7/16"
600185-6* **	L	Female, Vented Replaces Freightliner A03-12927-6 and Kenworth K071-385-1234**	3"	5-1/2	3-7/16"	3-1/2"
600183-6* **	M	Female, Vented Replaces Freightliner A03-15682-6 and Western Star 43301-3403*	3"	8	3-3/8"	3-7/16"
600149	N	Female, 1/4 Turn Replaces Freightliner 03-37017-002	3"	N/A	3-1/2"	3-7/16"
600169-6	O	Female, Non-Vented	4"	8	4-3/8"	4-7/16"
600181-6	P	Female, Vented	4"	8	4-1/2"	4"
600173-6	Q	Male, Non-Vented	4-1/4"	8	4-1/4"	4-1/8"

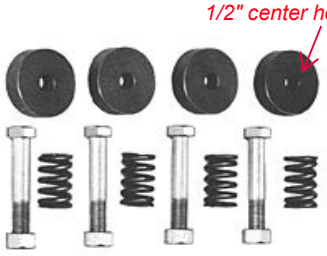
****Keys not available separately*

Filler Neck Adapter Kit

- Part No. 600191 allows 2" female fuel caps to be installed on filler necks with small inside diameters
- Part No. 600191 allows 2" female fuel caps to be installed on 2-1/2" male filler neck with 8 threads per inch.
- Kits include aluminum adapter, installation instructions and adhesive.

Part No.	Description
600112	Filler Neck Adapter Kit
600191	Filler Neck Adapter Kit

Saddle Tank Mounting Kit



- Complete kit for mounting one saddle tank.

Part No.	Description
602002	Saddle Tank Mt. Kit

Kit Contents:

Part No.	Description	Qty
060033	Rubber Pad	4
060034	Spring	4
405049	Lock Nut	4
408060	Hex Bolt	4

Anti-Siphon Tubes

Protect your fuel with Velvac's
Anti-Siphon Tube

- Makes siphoning fuel impossible- patented aluminum extrusion in the tube
- Durable design- made from 6061 aircraft aluminum tubing with a 0.065" wall thickness
- Vented for fueling- fuel 20+ gallons per minute
- OEM approved design- fits almost every filler neck

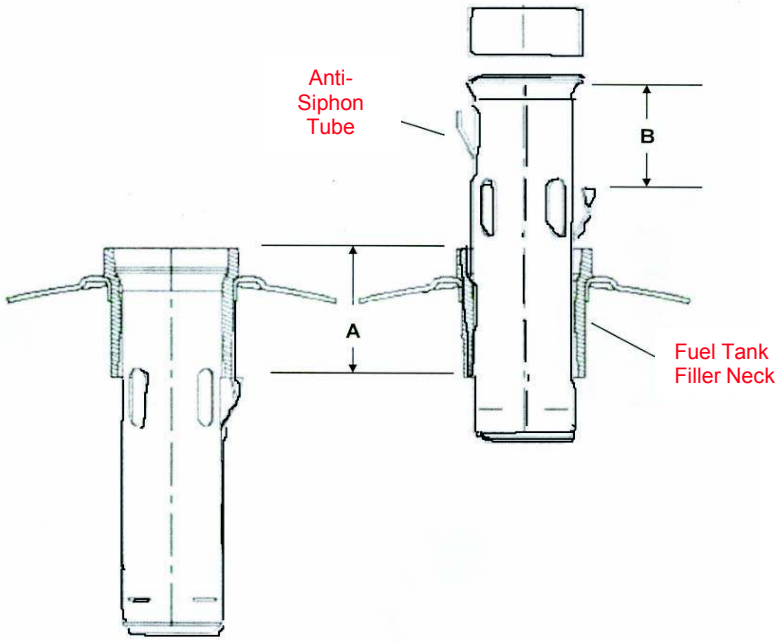
Part No.	Dimension "B"	Diameter Filler Neck	Fits Application
600241	3-3/4 inches	3 inches	Fits Heavy Duty Volvo, International and Mack Trucks
600242	3-3/4 inches	2-1/2 inches	Fits Heavy Duty Volvo, International and Mack Trucks
600243	2-3/4 inches	2-1/2 inches	Fits Heavy Duty Kenworth
600244	2-3/4 inches	2-1/4 inches	Fits Heavy Duty Freightliner
600245	2-1/4 inches	2 inches	Fits Medium-Duty Trucks
600246	3-3/4 inches	1.87 inches	Fits Medium-Duty and Reefer trucks

EASY TO INSTALL

1 Measure the inside diameter of fuel tank filler neck.

2 Measure the length **(Dimension "A")** of the fuel tank filler neck using a tape measure inside the neck.

3 Review the available anti-siphon tubes and their dimensions. **(Dimension "B")** from the underside of the top lip to the tip of the last barb.



4 Select an anti-siphon tube with **Dimension B** greater than **Dimension A** to insure that when installed the barbs will catch on the bottom of the filler neck and prevent removal of the anti-siphon tube.

5 Insert properly sized anti-siphon tube into filler neck and press into place. If you pull back on the anti-siphon tube after installed and it can be easily removed, it is not sized properly. It is recommended that you re-check the above noted dimensions.

NOTE: CAN NOT BE REMOVED ONCE INSTALLED

Crossover Fuel Line Safety Valve

- Functions as a "fuse" in the fuel crossover line, automatically shutting off the flow of fuel if the line between a vehicle's main and auxiliary tanks is torn away or obstructed
- Separates before the crossover fuel line ruptures, preventing damage to fuel tank lines, fittings and valves
- Reduces the risk of fire and fuel slick by minimizing fuel loss if crossover fuel line is torn away
- Lightweight aluminum construction
- 3-1/8" length, 1-1/4" diameter

Part No.	Description
060056	Crossover Fuel Line Safety Valve

Technical Information

Flow -

4.0 gpm minimum at 1.0 psi differential pressure

Leakage -

Prior to actuation: zero leakage up to 5.0 psi

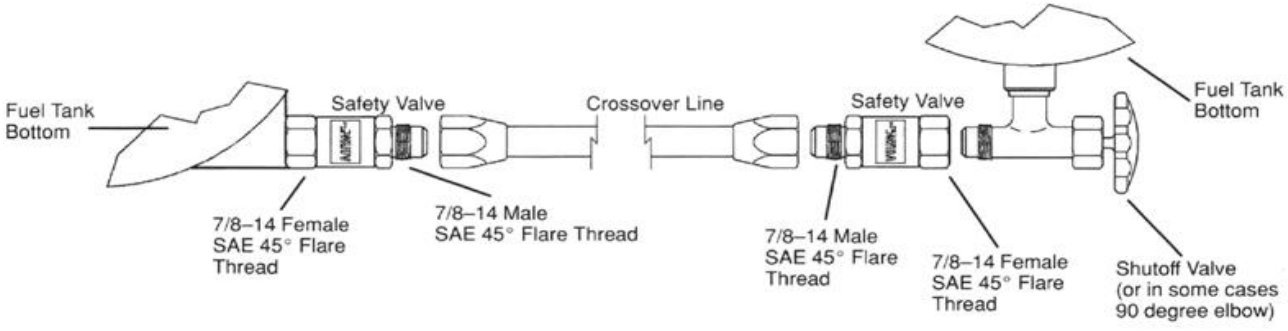
After actuation: maximum 1/2 oz. By weight up to 5.0 psi

Actuation -

Tension: minimum 450 lbs; maximum 700 in. / lbs

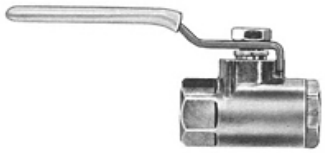
Environmental -

Meets all performance requirements during and after exposure to salt spray, vibration, blended fuels and hot or cold temperature variations typical of tractor operating conditions



FUEL TANK VALVES (cont.)

Ball Valve



- Designed for fuel line shutoff in gasoline and diesel vehicles. May also be used for water and air service lines
- Heavy-duty forged brass body provides extended service
- Teflon® seats and seals provide positive sealing with easy opening and closing
- 600 psi water, oil or fuel
- 150 psi on/off saturated steam service lines
- 29 in. Hg vacuum service

Part No.	Description
060050	Ball valve with 1/2" FPT both ends

Tank Cocks

Three-Way Part No. 060004

Three-Way Part No. 060012

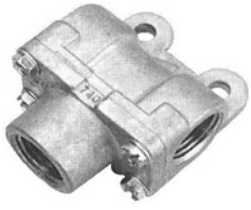
Four-Way Part No 060001 or 060007

- All brass bodies
- Mounting flanges with 1/4" bolt holes
- Standard 1-1/2" stems

Part No.	Description
060004	Three-Way Tank Cock with 3/8" FPT Side Ports
060012	Three-Way Tank Cock with 1/4" FPT Bottom and Side Ports
060001	Four-Way Tank Cock with 3/8' FPT Bottom and Side Ports
060007	Four-Way Tank Cock with 1/4' FPT Bottom and Side Ports

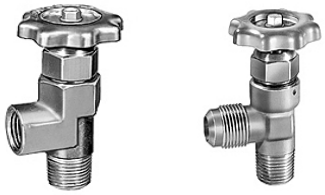
Return Flow Splitters

- Designed for dual draw/dual return diesel fuel system
- Distributes fuel equally to both left and right tanks eliminating the need for crossover lines
- Durable zinc die cast bodies
- Convenient tee configuration for easy plumbing to each tank
- Applicable for marine use
- (3) 1/2: FPT ports
- (2) 1/4" mounting holes



Part No.	Description	Vehicle Applications
060070	Standard Flow	Ford and Kenworth
060071	High Flow	Navistar, Volvo, Mack, Peterbilt and Western Star

Diesel Fuel Valves



- All brass bodies provide added durability
- Neoprene seats make valves compatible with most liquids
- Both with 1/2" MPT bottom ports

Part No.	Description
060026	Leveling Valve with 1/2" FPT Side Port
060027	Leveling Valve with 5/8" SAE 45" Male Flare Side Port

ELECTRIC FUEL TANK SELECTOR VALVES

Six Port Motor-Driven Valve

(Not for marine use)

- Designed for systems with fuel or vapor return lines - not for use with fuel systems operating over 30 psi
- Reduces the possibility of fuel returning to incorrect tank as valve remains in actuated position after power is disconnected
- Permits high closing pressures
- Can be used for biodiesel, vegetable oil and olive oil
- 12 VDC
- Operating temperature range of -40˚ to 180˚ F
- 3/8" supply lines, 5/16" return lines
- Weatherproof electrical connector part No. 060049 is required for all new installations

Part No.	Description
060047	Six Port Motor-Driven Valve
060049	Electrical Connector

Fuel Solenoid Shut Off Valve

- Direct replacement for Cummins 3035342, BM-69973
- 12 VDC
- Ports accept 1/4" tube
- 3" overall height
- Includes seal ring and port plug

Part No.	Description
034095	Fuel Solenoid Valve

FUEL TANK SAFETY VENTS

A

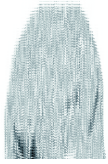
B

C

D

E

- Feature patented anti-spill protection
- Vents meet all applicable DOT requirements


F

Part No.	Photo	Thread Size	Barb Size (I.D. Hose)	Fuel Application	Vehicle Application
060060	A	1-1/4" PTF SAE Short	1/4"	Diesel	Peterbilt
060061	B	1/2"-14 PTF SAE Short	5/16"	Gasoline	Various
060062	C	1/2"-14 PTF SAE Short	5/16"	Diesel	Various
060063	D	1/4"-18" PTF	1/4"	Diesel	Various
Valves with Pressure and Thermal Relief Features					
060040	E	1/4"-18 PTF	N/A	Diesel	Pre-1992 Kenworth
060064	F	1/2"-14 PTF SAE Short	5/16"	Diesel	Kenworth

PTF = Pipe Thread Fuel

Accessories 137-141

There's nothing worse than getting caught in a storm with worn out wiper blades. Luckily, Velvac has you covered.

Velvac offers a full range of wiper blades designed to suit your commercial vehicle application and environment.

We also carry a myriad of accessories, from emergency triangles and tarp straps to document holders, intended to keep drivers safe and… **in the Passing Lane.**

NEW — Indicates a new product added to catalog

VELVAC Original — Indicates an original Velvac® product

Revised Part No. — Indicates a revised part number

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For quantity and packaging information, refer to our price list.

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VELVAC® In the Passing Lane Since 1934

UNIVERSAL WIPER BLADE: All makes heavy duty wiper blade replaces the Anco 31 Series blade, featuring an all steel frame construction, with compression molded-rubber for long life.

HIGH CURVE BLADE: Heavy duty blade used for highly curved windshield applications.

HEAVY DUTY FLEX BLADES: Designed for heavy duty arms that have less than 48 oz. of load. Can be used on flat or curved windshields, with narrow saddle arms.

UNIVERSAL WINTER HEAVY DUTY: Heavy duty steel construction is surrounded by a rubber boot to minimize the accumulation of snow and ice on the wiper blades.

PREMIUM UNIVERSAL WIPER BLADE: All makes PREMIUM heavy duty wiper blade replaces the Anco 91 Series heavy duty blade, featuring a riveted all steel frame and compression molded rubber blade for increased life and durability

HEAVY DUTY FLAT BLADE: Used in flat windshield applications. Stainless Steel rail. Typically used on heavy duty trucks, school buses, step vans and RV's.

WINTER HEAVY DUTY NARROW: Heavy duty steel frame, for narrow arms, is surrounded by a rubber boot, minimizes the accumulation of snow and ice.

TRANSIT BLADE: Typically used for bus and transit vehicle applications, with wide saddle arms.

Part No./Type	Length	Anco No.	Trico No.
Transit Blade			
13226SS	26"	52-27, 52-26	—
High Curve			
13718	18"	57-01	—
Premium Universal			
76-14	14"	91-14	—
76-15	15"	91-15	15-1
76-16	16"	91-16	16-1,16-2
76-18	18"	91-18	18-1,18-2
76-19	19"	91-19	19-1,19-2
76-20	20"	91-20	20-1,20-2,20-4,20-9
76-21	21"	91-21	21-1
76-22	22"	91-22	22-1,22-4,22-9
76-24	24"	91-24	24-1,24-4,24-9
76-28	28"	91-28	28-1
Universal			
75-14	14"	31-14	—
75-15	15"	31-15	—
75-16	16"	31-16	—
75-17	17"	31-17	—
75-18	18"	31-18	—
75-19	19"	31-19	—
75-20	20"	31-20	—
75-21	21"	31-21	—
75-22	22"	31-22	—
75-24	24"	31-24	—

Part No./Type	Length	Anco No.	Trico No.
Heavy Duty Flat			
71-13	13"	51-13	62-130
71-14	14"	51-14	61-140
71-15	15"	51-15	61-150
71-16	16"	51-16	61-160
71-18	18"	51-18	61-180
71-20	20"	51-20	61-200
Heavy Duty Flex			
72-15	15"	52-15	63-151,64-150
72-16	16"	52-16	63-161,64,160
72-18	18"	52-18	63-181,64-180
72-20	20"	52-20	63-121,64-200
Winter Heavy Duty Universal			
W15	15"	30-15	37-151
W16	16"	30-16	37-160
W18	18"	30-18	37-180
W20	20"	30-20	37-205
W22	22"	30-22	37-225
W24	24"	30-24	37-245
NEW **W26**	26"	—	—
W28	28"	—	—
Winter Heavy Duty Narrow Saddle			
WN13	13"	59-13	66-130
WN15	15"	59-15	66-150
WN16	16"	59-16	66-160
WN18	18"	59-18	66-180

**Refer to www.velvac.com for all makes cross reference guide*

***See page 153 for Part No. 690046 POP floor display*

TARP STRAPS, EMERGENCY TRIANGLE, KING PIN LOCK

Tarp Straps

- Made of molded rubber for ozone resistance and stretch resiliency
- Designed to hold tarp covers on trucks and trailers
- Hooks are crimped to prevent hook disconnection
- Straps will stretch up to twice their length
- Premium and DPM straps add increased UV protection

Rubber Tarp Part No.	Premium EDPM	Description
580113	**580118**	9" Length
580114	**580119**	15" Length
580115	**580120**	21" Length
580116	**580121**	31" Length
580117	**580122**	41" Length

CAUTION: RUBBER TARP STRAPS CAN HAVE A STRONG SPRING TENSION AND CAN CAUSE BODILY INJURY IF IT WERE TO COME UNHOOKED OR BREAK. SAFETY GLASSES ARE RECOMMENDED. TARP STRAPS ARE NOT TO BE USED TO RESTRAIN OR SECURE CARGO!

Emergency Triangle Kit

- Kit contains three triangles stored in a compact plastic box
- No tools needed
- Triangles are made of reflective plastic for day or night use
- No power use needed
- Weighted triangle base adds stability in windy conditions.
- Helps comply with DOT standard FMVSS 125

Part No.	Description
090008	Emergency Triangle Kit

King Pin Lock

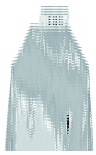
- Help deter UNWANTED trailer hookups
- Made of durable cast iron, it enhances protection against theft, breakage or damage
- Heavy duty zinc plated lock set helps deter rusting and extends service life
- Lock set includes two (2) keys
- NOTE: Each King Pin Lock is randomly keyed
- NOTE: Keyed alike is not avaialble

Part No.	Description
019032	King Pin Lock

Tite-Seal Document Storage Case

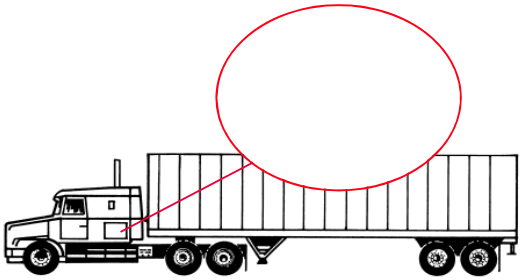
Case with Bracket and CapKeeper™ Cable

Light Duty



Standard Case with Bracket

Mounting Bracket : 5-3/4" high x 2-13/16" wide x 4" deep
Mounting Holes : (5) 3/16" diameter
Tube Diameter : 1-5/8"



- Patented rubber caps create a watertight seal
- Aluminum mounting bracket features cushioned tube supports and pre-drilled mounting holes
- CapKeeper protective cable secures caps to mounting bracket

Part No.	Description
090113	Light Duty Aluminum Tube with Painted Steel Cap
090114	9" Aluminum Tube with Bracket
090115	9" Aluminum Tube with Bracket and CapKeeper Cable
090116	12" Aluminum Tube with Bracket and CapKeeper Cable
090119	Replacement Rubber Cap

** CapKeepers™ is a trademark of Velvac, Inc.*

License and Permit Holder

- UV-resistant Lexan®
- Inside dimensions are 3-1/8" to 3-3/4" wide x 5-1/2" high x 1-1/4" deep
- Three 1/4" mounting posts
- Documents secured by a metal spring clip and plate

Part No.	Description
090060	License and Permit Holder
090061	Replacement Cover

** Lexan® is a registered trademark of SABIC Innovation Plastics*

Heavy Duty Radiator Caps

Velvac is now featuring All-Makes of Heavy Duty Truck radiator caps

Part No.	Deep Neck	Pressure (lbs)
10205	1"	4
10206	1"	7
10208	3/4"	4
10238	threaded filler neck	16
10308	34"	4

Part No. 10205

Part No. 10206

Part No. 10208

Part No. 10238

Part No.10308

Part No.10227

Part Nos.10228, 10229

10230, 10231

Part No.10233

Part No.10237

Part Nos.10241, 10242

Part No. 10327

Part Nos.10328, 10329

Part No. 10333

Part Nos.10330, 10331

Part No. 10337

- For Radiator Overflow Reservoir Systems

Part No.	I.D. Size	Deep Neck	Pressure (lbs)
10227	32MM	16MM	13
10228	—	3/4"	7
10229	—	3/4"	13
10230	—	3/4"	16
10231	—	3/4"	16 vented
10233	32MM	16MM	16
10237	—	3/4"	10
10241	31MM	10MM	13
10242	31MM	10MM	16
10327	32MM	16MM	13
10328	—	3/4"	7
10329	—	3/4"	13
10330	—	3/4"	16
10331	—	3/4"	16 vented
10333	32MM	16MM	16
10337	—	3/4"	10

Part No.	O.D. Size	Deep Neck	Pressure (lbs)
10281	"B" 2-11/16"	3/4"	4
10282	"B" 2-11/16"	3/4"	7
10283	"B" 2-11/16"	3/4"	10
10292*	"B" 2-11/16"	3/4"	7
10293*	"B" 2-11/16"	3/4"	10
10294*	"B" 2-11/16"	3/4"	15

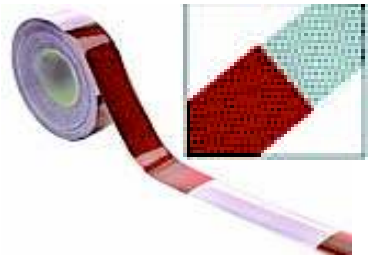
* *For Radiator Overflow Reservoir Systems*

Stant® is a registered trademark of Stant

NOTE: *An industry leader: Stant ®*

CONSPICUITY TAPE, MECHANICS WIRE

Conspicuity Tape



Red and White

Designed to mark the side and rear perimeter of trucks and trailers for enhanced visibility and detection **DOT-C2 certified and guaranteed to meet or exceed all FMVSS 108 and NHTSA requirements**

- Alternates 11" of red and 7" of white
- Superior daytime visibility and nighttime reflectivity
- 3 year warranty

Part No.	Description
058370	2" x 150'

Yellow

School bus yellow tape is designed for retrofit applications. Enhanced daytime appearance and sight detection for safety. Withstands the abuse of mechanical and high pressure washings.

- Meets and exceeds 2000 National Standard for buses ASTM D4956-01 (Type V), FMVSS 131 and FMVSS 217
- 3 year warranty

Part No.	Description
058379	2" x 150"

Mechanics Wire

- Heavy-duty black annealed construction

Part No.	Wire Size	Roll Weight
090142	14 ga.	2 lb.
090145	14 ga.	5 lb.
090162	16 ga.	2 lb.
090165	16 ga.	5 lb.
090182	18 ga.	2 lb.
090185	18 ga.	5 lb.

Conspicuity Strips and Reflective Circles

- DOT-C2 certified conspicuity strips
- Replaces damaged or worn out tape with cost cost efficient conspicuity strips
- Conspicuity tape is weather, solvent and UV resistant and applies easily to painted or non-painted surfaces
- SAE-A DOT reflective circles
- Add more visibility without adding costly lights
- Conveniently packaged in Polybags ready to display
- Four reflectors per package

Part No.	Description
058373	2" x 18" (7-11) Conspicuity Strips
058374	2" x 12" (7-11) White Conspicuity Strips
058377	2-3/4" Diameter Red Reflective Circles

See Page 101
for General Purpose Electrical
Tape and Silicon Self-Fusing Tape

Safety Mirrors 143-145

Safety First!

Velvac offers a full line of safety mirrors that provide a bright, distortion-free view of surrounding areas, allowing in-plant vehicles and personnel to move safely throughout your facility.

Perfect for hallways, blind alleys, loading docks, parking ramps or garages.

Velvac safety mirrors provide the field of view necessary to avoid unwanted accidents and help keep your facility OSHA compliant.

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NEW — Indicates a new product added to catalog

VELVAC Original — Indicates an original Velvac® product

Revised Part No. — Indicates a revised part number

For quantity and packaging information, refer to our price list.

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Email: sales@velvac.com

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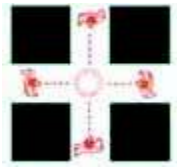
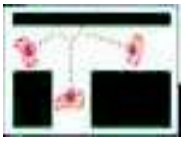
VELVAC® In the Passing Lane Since 1934

K-10® Hemisphere® Mirrors

360° Hemisphere



180° Hemisphere



90° Hemisphere

- Provides a bright distortion-free view of an entire area, allowing in-plant vehicles and/or personnel to move safely through the facility
- 360 degree can be suspended from ceiling to see blind corners
- 180 degree for use in a 3-way "T" corridor and other areas where enhanced wide-angle viewing is required
- 90 degree for use in 2-way "L" hallways and intersections fitting perfectly against the ceiling for superb visibility around blind corners
- Pendulum-style hanging kit is available for 30-42" sizes. Smaller sizes attaached to T-bar ceilings with specially provided mounting clips and are pre-drilled for screw mounting and are pre-drilled for screw mounting

	Degree View			
Diameter	90	180	360	Ceiling Ht
18"	–	**730209** *HT18180*	**730200** *HF18360*	Up to 8'
	–			
24"	**730204** *HL24090*	**730210** *HT24180*	**730201** *HF24360*	8' to 10'
30"	**730206** *HL30090*	**730212** *HT30180*	**730214** *HF30360*	10' to 12'
36"	–	**730215** *HT36180*	**730202** *HF36360*	12' to 15'
	–			

Ceiling Mirror Tile

Part No.	Description
702155 *HFT24360-T*	24" X 24" 360˚ Tile for suspended ceilings

Installation Kits

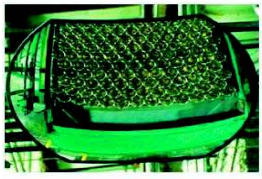
Part No.	Description
730194 *IK30*	30" Pendulum Style installation kit
730195 *IK36*	36" Pendulum Style installation kit

K-10 Convex Observation Mirrors

Full Round Indoor

Full Round Indoor Mirror

- Ideal wherever ***detailed*** observation and monitoring is required where employees and equipment cross paths. Includes hardware and swivel for mounting



Oblong Indoor

Oblong Indoor Mirror

- Bright distortion-free images allow excellent safety vision and traffic control as well as quality inspection viewing of assembly lines or machinery production areas
- Ideal for overhead safety and detailed vision situations with limited space, includes hardware and mounting bracket

Heavy Duty Full Round Outdoor

- Perfect for ***outdoor*** safety and security. Installation in blind alleys, loading docks, parking ramps or garages. Includes ABS back and hardware for swivel mounting

Heavy Duty Full Round Outdoor*

ABS back

Mirror diameter in inches should be equal to viewing distance in feet. (For example, a 16" mirror should be used for viewing 16' away.) If mirror is to be used for security a larger diameter is recommended because of image clarity.

	Indoor	Outdoor/HD
Diameter	**Part No.**	**Part No.**
12"	**730101*** *(FRD012-HD)*	**730101*** *(FRD012-HD)*
16"	**730102** *(FRD016)*	**730103** *(FRD016-HD)*
18"	**730123** *(FRD018)*	**730104** *(FRD018-HD)*
24"	**730124** *(FRD024)*	**730105** *(FRD024-HD)*
26"	**730125** *(FRD030)*	**730121** *(FRD026-HD)*
30"	**730106** *(FRD030)*	**730122** *(FRD030-HD)*
36"	**730107** *(FRD036)*	**730108** *(FRD036-HD)*

**Part 730101 can be used indoor or outdoor*

Oblong Indoor Only	
Size	**Part No.**
24" x 16"	**730126** *(OB2416-HD*)*

**Custom for off-road equipment*

K-10 Observation Window

- Clear Polycarbonate bubble window
- 360 degrees
- Permits easy viewing of high stress areas before or without entering

Part No.	Size
702157 *(PBW-18)*	18" dia x 1/4" x 6" deep

K-10® Wall-Eye® Mirror

Conveniently flush mounted to the wall at eye-level, the K-10 Wall-Eye Mirror, provides more than 180˚ of enhanced visibility, enabling persons entering hallways and corridors to move safely through them. This new mirror concept provides the visibility of two convex mirrors mounted side-by-side and is easily installed where doorway headers obstruct traditional ceiling mounted mirrors.

Part No.	Description
730116 *WE18*	18" diameter, flush mount against the wall
730117 *WE18-HD*	18" diameter, ABS back includes adjustable mounting brackets

K-10 Lift Truck Mirror

- Reduces lift truck operator blind spots
- Operator's image will not obstruct the view
- Driver not only sees to the side and behind, but can also see the load directly in front

Part No.	Description
716911 *(ELBTS-45S-B)*	8" Black Eyeball

**K-10 Hemisphere® and Wall-Eye® are registered trademarks of Velvac, Inc*

RETAIL 147-153

A place for everything, and everything in its place!

Spruce up your warehouse, parts department or retail area with Velvac retail displays. These displays help to organize and position the "high runners" everyone is looking for.

All displays are custom designed to properly promote and support the products they are intended to hold.

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VELVAC® In the Passing Lane Since 1934

Mirror Assortment and Spinner Display

NEW

One of the proven methods to increase sales is displaying product. Velvac now offers a 3-sided spinner display complete with an assortment of popular mirrors designed to improve driver safety by reducing blind sports.
When you order 690110, you receive the following:

- Assortment of the popular mirrors
  - West Coast
  - 8 1/2" Convex
  - 5, 6, 7 1/2" Convex
  - Stick-On
- Includes
  - 17 popular part numbers
  - Totalling 150 items
  - 3-Sided Spinner Display
  - Plan-O-Gram
  - 25 4" peg hooks

Part No.	Description
690110	Mirror Assortment & Display

RETAIL

Mirror Assortment and Display

Assortment includes the following part numbers and quantities plus Spinner Dsiplay

Part No.
690110

Part No.	Qty
708501	12
708502	12
708556	6
708503	6
708520	10
708521	8
708515	10
708509	10
708508	10

Part No.	Qty
705038	10
705333	8
705107	6
708331	6
705335	6
723050	10
723060	10
723065	10
723075	10

Part No.	Qty
723100	3
690108	25
690104	1
Plan-o-Gram	1

Electrical Component Assortment and Spinner Display

NEW

- Assortment of the popular, high running electrical components
  - Butt and Ring Tongue Connectors
  - Quick Slide Connectors
  - Heatless Connectors
  - Fuse Holders and Fuses
  - Heat Shrink Tubing
  - Silicon Self-Sealing Tape
  - Electrical Tape
  - Crimping Tools
  - Cable Ties
- Includes
  - 65 popular, high running part numbers
  - Totalling 226 items
  - 3-Sided Spinner Display
  - Plan-O-Gram
  - 107 4" peg hooks

Part No.	Description
690111	Electrical Assortment & Display

RETAIL

Electrical Component Assortment and Display

Assortment includes the following part numbers and quantities plus Spinner Dsiplay

Part No.
690111

Part No.	Qty	Part No.	Qty	Part No.	Qty	Part No.	Qty	Part No.	Qty
058313-10	10	058303-50	4	056113-5	3	091180-5	2	091403-5	2
058313-40	10	058304-50	4	058382	8	091181-5	2	091404-5	2
058314-10	6	058306-50	2	058380	2	091182-5	2	091131-5	2
058314-40	4	056005-10	4	057131	2	091183-5	2	091131-5	2
058312-10	4	056005-50	6	057132	2	091184-5	2	091140-5	2
058312-50	6	056006-50	4	057133	2	091303-5	2	091142-5	2
056052-10	4	056008-50	4	090068-100	9	091305-5	2	091144-5	2
056052-50	6	056011-50	2	091190	4	091306-5	2	091254	4
056053-10	4	058316-40	2	091130	4	091307-5	2	090066-100	9
056053-50	6	058319-50	2	091426	2	091308-5	2	690104	1
056051-50	6	056070-50	2	091189	2	091309-5	2	Plan-o-Gram	1
057086-50	4	056067-50	2	091325	2	091400-5	2		
058026	2	056111-5	3	091326	2	091401-5	2		
090070-25	9	056112-5	3	091175-5	2	091402-5	2		

Air and Electrical Display Rack

- Ships with an attractive Laminated Velvac Header
- Designed for more flexible product sets
- Bins are designed to accept dividers which increases storage possibilities
- Display is formed from 16-gauge steel for strength and stability
- Display is designed to hold up to 800 pounds
- Easy to assemble
- Ships with PLAN-O-GRAM

Part No.	Description
690201	Includes Rack and Bins, Air and Electrical Products, Plan-O-Gram, header, display and bin labels

RETAIL

Air and Electrical Display Rack

Display includes the following part numbers and quantities

Part No.	Qty
035031	40
035032	40
035033	40
035037	5
035092	5
035093	5
035009	100
035010	100
035011	100
035094	5
035095	5
035007	50
035070	4
022002	5
022001	5
022025	5

Part No.	Qty
032082	5
032058	5
590160	4
590161	4
590163	4
590155	4
590157	4
593057	5
593022	5
593083	5
593084	5
038001	5
038003	5
038005	5
580037	10
580039	5
580040	5

Brass Fitting POP Display

- Designed for more flexibility and storage space
- Choose from 3 different bin sizes layouts
- Bins are designed to accept dividers which increases storage possibilities
- Frame is formed from 16-gauge steel for strength and stability
- Frame is designed to hold up to 800 pounds
- Attractive header card puts the Velvac name in front of your customers
- Display assembly can be ordered in 3 different pre-designed configurations or by the individual pieces

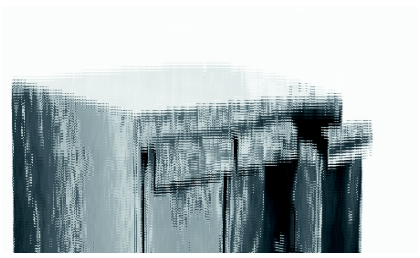
RETAIL

Part No.	Description	Size
690187	Cabinet Frame Only	54"H x 36"W x 16"D (Header adds 10")
690188	Small Storage Bin	7-3/8"L x 4-1/8"W x 3"H (HOLDS: 50 seals, 5-10 drain plugs, 4-5 gladhands)
690189	Medium Storage Bin	10-3/4"L x 8-1/4"W x 7"H (HOLDS: 15 gladhands, 15 7-way plugs 10 sockets)
690190	Large Storage Bin	14-3/4"L x 16-1/2"W x 7"H (HOLDS: 2-3 coiled electric, 1-2 coiled air sets)
690191	Small Bin Divider	2-1/2"H x 6-3/4"L
690192	Medium Bin Divider	6-1/2"H x 10"L
690193	Large Bin Divider	6-1/2"H x 13-3/4"L
690194	Cabinet frame assy, Velvac header card, instruction sheet, 96 small bins and 48 small bin dividers	
690195	Cabinet frame assy, Velvac header card, instruction sheet, 56 small bins, 4 medium bins, 2 large bins, 28 small bin dividers, 2 medium bin dividers and 1 large bin divider	
690196	Cabinet frame assy, Velvac header card, instruction sheet, 40 small bins, 8 medium bins, 2 large bins, 20 small bin dividers, 4 medium bin dividers and 1 large bin divider	

Fitting Labels

409565	Complete set of bin labels for all fittings	NEW

Fitting Assortments



- Steel cabinet with rust-resistant baked enamel finish
- Cabinet includes 18 drawer dividers and nine large steel drawers with "positive stop" feature, preventing drawers from being accidentally pulled out
- Measures 17-1/4" W x 10-7/8" H x 11-5/8" D
- Assortments come complete with all specified fittings, cabinet and drawer dividers

Part No.	Description	Total Fittings
690072	Push-Lock Fitting Assortment	155
690059	Large Air Brake Compression Fitting Assortment	583
690071	Nylon Air Brake Tube Fitting Assortment	304
690064	Brass Pipe Fitting Assortment	340
690090	Cabinet Only	—
690091	Replacement Drawer Dividers (Pkg. qty 12)	—

Counter Top Bucket Display

Front Side

Back Side

- A convenient way to display new products while increasing your inside store sales
- Round clear canister, 7" diameter x 7.5" height
- Sold complete with cover for easy shipping or fleet sales
- Product label includes an area to write in your part number, UPC code and price

Part No.	Description
035160	Black Poly Display
035161	Red Poly Display
035162	Blue Poly Display
035163	Black Rubber Display
058380-4	Silicon Self Fuse Tape (10) Black
058381-4	Silicon Self Fuse Tape (10) Red
056121	Heatless Butt Connectors including (50) 056111 (200) 056112 and (50) 056113. See page 92

Polyurethane Gladhand Seals

- Color-coded seals will not crack or tear, reducing maintenance time and costs associated with rubber seal replacement
- Available in attractive display box with 25 sets of seals (sets consists of four seals per bag, two red and two blue)

Part No.	Description
035012	Display Box with Seals
035009	Red Polyurethane Seals
035010	Blue Polyurethane Seals
035011	Black Polyurethane Seals

Display Bin Box

- Manufactured with corrugated cardboard for extra durability
- Great for store merchandising or storage of loose parts
- Fits on standard shelving or display units
- Complete with Velvac logo for store merchandising and brand recognition

Part No.	Description
690007	White 4" x 9"
690008	White 6" x 9"

RETAIL

Slotted Hose Clamp Rack and Assortment

- Sturdy, wall mount/counter rack ideal for displaying fast-moving miniature and general purpose hose clamps
- Assortment includes rack, header and 230 of the most popular slotted clamps
- Rack and header also sold separately

Part No.	Description
022566	Hose Clamp Assortment with Rack and Header
022565	Rack and Header Only

Assortment includes the following hose clamps:

Part No.	SAE Size	Quantity
022204	4 Mini	40
022206	6 Mini	40
022310	10	30
022312	12	30
022320	20	30
022328	28	30
022336	36	30

Large Hose Clamp Rack

- Attractive freestanding or wall mountable display
- Includes 270 of most popular clamps
- Rack dimensions 21.5" W x 23" H x 8" D
- Moveable hooks allow for various configurations

Part No.	Description
022628	Rack and Header Only
022630	Hose Clamp Assortment with Rack and Header

Assortment Includes:

Part No.	Description	Quantity
022204	Mini Clamp 7/32" x 5/8"	20
022206	Mini Clamp 7/16" x 25/32"	20
022310	Slotted Clamp 9/16" x 1-1/16"	20
022312	Slotted Clamp 11/16" - 1-1/4"	20
022320	Slotted Clamp 13/16" - 1-3/4"	20
022324	Slotted Clamp 1-1/16" - 2"	20
022328	Slotted Clamp 1-5/16" - 2-1/4"	20
022332	Slotted Clamp 1-9/16" - 2-1/2"	20

Part No.	Description	Quantity
022336	Slotted Clamp 1-13/16" - 2-3/4"	20
022626	Spring T-Bolt Clamp 4-1/16" - 4-3/8"	15
022581	Spring T-Bolt Clamp 2-3/4" - 3-1/16"	15
022430	Constant Torq Clamp 2-1/4" - 3-1/8"	15
022435	Constant Torq Clamp 2-3/4" - 3-5/8"	15
022425	Constant Torq Clamp 1-3/4" - 2-5/8"	15
022445	Constant Torq Clamp 3-3/4" - 4-5/8"	15

Air Brake Hose Assembly Display Rack

- For display and organization of 3/8" and 1/2" air hose assemblies
- 12 separate slots hold up to 48 hose assemblies
- Rack measures 21' W x 6 " H x 6" D
- Air brake hose assemblies sold separately (see page 40, 41)

Part No.	Description
691020	Display Rack*

RETAIL

Three-Sided Spinner Display

NEW

- Increase your sales opportunities by displaying product and letting your customers know what you have for sale
- Assembles in minutes - no tools required
- Stands 5ft tall (66" including the 3 Velvac header signs)
- Three 16" pegboad panels
- Rotating display stand

Part No.	Description
690104	Three-Sided Spinner Display Only

Peghooks available separately

Part No.	Description
690108	4" peghooks
690107	2" peghooks

Wiper Blade Display Rack

- Attractive freestanding display provides an automatic point-of-purchase for Velvac wiper blades
- Ships complete with variety of wiper blades
- Display includes an application cross reference for typical heavy duty vehicle applications
- See page 109 for wiper blade information

Part No.	Description
690046	Wiper Blade Display Rack complete with a variety of wiper blades

Display assortment includes :

Part No	Description	QTY
76-28	28" Universal Blade	5
71-15	15" Narrow Blade	5
71-18	18" Narrow Blade	5
72-15	15" HD Curved Blade	5
72-16	16" HD Curved Blade	5
72-18	18" HD Curved Blade	5
75-16	16" Universal Blade	5
76-16	16" Prem Universal	5
75-18	18" Universal Blade	5
76-18	18" Prem Universal	5
75-20	20" Universal Blade	5
76-20	20" Prem Universal	5
75-22	22" Universal Blade	5
76-22	22" Prem Universal	5
690011	14 Prong Rack	1
--	HD Cross Reference	1

Carton Floor Display

- Corrugated cardboard display
- Shipped with a pre-determined order size
- Easily assembled for an attractive point-of-purchase on your showroom floor

Part No.	18 Sets	Description
690197	022025	15' coiled nylon, 12" leads
690198	022001	15' coiled nylon, 40" x 12" leads
690199	590161	15' 7-way coiled, 12" leads
690200	590157	15' 7-way coiled, 5/14, 1/12

RETAIL

Wire Display Rack

- Feestanding or wall mountable display constructed of sturdy heavy gauge steel
- Overall dimensions 16-1/2"H x 14-3/4"W x 6"D (header adds approximately 5-1/4" to height measurement)
- 15 hooks to display your product

Part No.	Description
091256	Wire Display Rack Only

Example of Electrical Terminal Display

- Use to build a seasonl display on parts counter
- Build your own:
  - Electrical Connector Display
  - Fuse Display
  - Fuse Holder Display

RETAIL

Primary Wire Rack

- Holds (12) 100' spools, (8) 100' and (2) 1000' spools or (4) 1000' spools
- Heavy gauge plated steel construction
- Wire spools sold separately

Part No.	Description
691015	Primary Wire Rack

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002063	57
006103	116
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006652	116
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006842	116
006852	116
006854	116
006864	116
006866	116
006886	116
006908	116
006932	116
006942	116
006944	116
006952	116
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006964	116
006966	116
006986	116
010085	113
010087	111
010089	111
010093	113
010094	111
010096	111
010098	111
10205	140
10206	140
10208	140
10227	140
10228	140
10229	140
10230	140
10231	140
10233	140
10237	140
10238	140
10241	140
10242	140
10281	140
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If you cannot find the part number you require, please contact Velvac at (800) 783-8871 for assistance.

NOTES

VELVAC

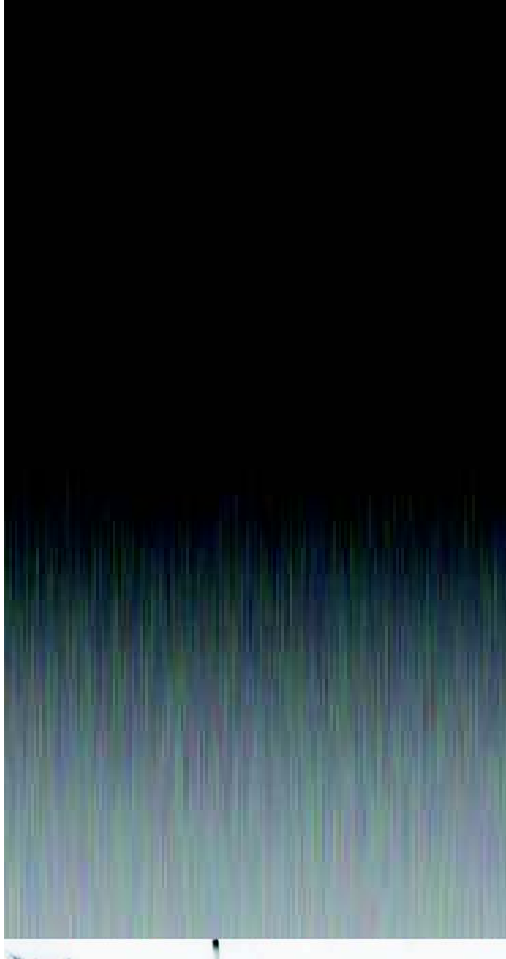
A Long Standing Commitment To Customers and Quality

The Vacuum Power Equipment Company opened its doors for business in 1934, beginning a long tradition of quality manufacturing and focused customer service. In 1940, the corporate name was changed to “Velvac” to encompass its popular **Vel**vet **Vac**uum Brakes brand. Our product line has expanded over the years and now includes over 3,400 popular vehicle components.

As a leading supplier to the heavy truck aftermarket, medium and heavy duty truck OEMs, recreational vehicle and specialty vehicle markets, Velvac continually upgrades and expands its operations and quality systems to exceed customer expectations while developing and manufacturing innovative new products to remain in front of its markets’ ever-changing needs.

In addition, we strive to make doing business with us easy. Experienced, friendly customer and technical solutions personnel team up with knowledgeable sales staff to answer questions and simplify ordering. Our B2B website allows customers access to account information 24/7, including order tracking details and order upload capabilities. EDI, data file transfers, advanced ship notices and a host of other services round out the technological support Velvac provides to meet a wide variety of customer requirements.

Velvac is a TS 16949 and ISO 14001 certified, multinational company with corporate offices and primary warehouse in New Berlin, WI and a full-line manufacturing and assembly facility in Reynosa, Mexico. Well stocked remote warehouses strategically located in California, Texas and Ontario ensure fast delivery of popular items anywhere in North America.



VELVAC®
In the Passing Lane Since 1934

VELVAC

WHAT DOES IT MEAN TO BE IN THE PASSING LANE?

For almost 80 years, Velvac has been providing high quality, innovative products with a focus on safety, value and great customer service. Our commitment to meeting our customers' changing product and service needs has never been stronger, as evidenced by our greatly expanded range of offerings aimed at keeping our customers in the commercial truck, recreational vehicle and specialty vehicle transportation industries operational and competitive.

Velvac's position as a preferred tier-1 OEM product supplier, combined with our highly efficient manufacturing and supply chain management, allow us to offer our customers both proprietary products and a competitive, broad line of industry standard products, making Velvac your one-stop shop for mirrors, air and electrical products, fittings, fuel caps and other high volume and hard to find truck and commercial vehicle accessories.

At Velvac, our mission is to improve customer safety and well-being by offering superior products that keep owners and operators… **in the Passing Lane.**

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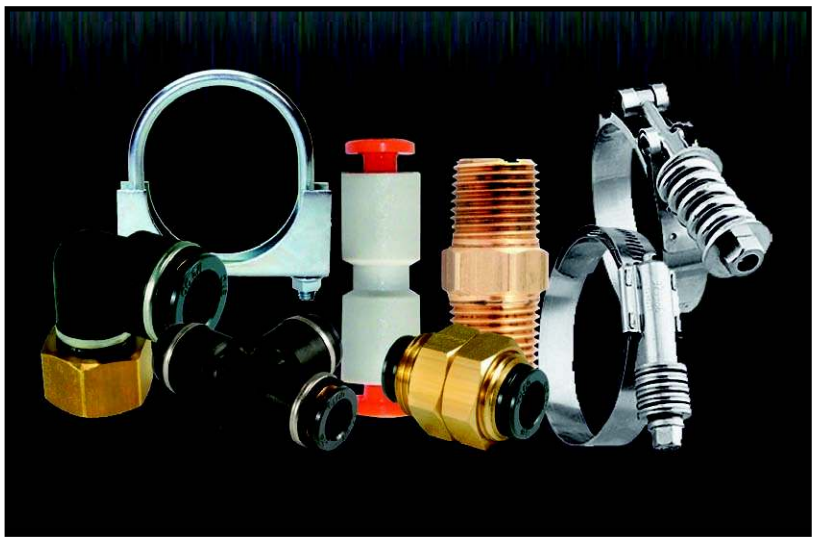

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